A

NEW and GENERAL

SYSTEM

OF

PHYSIC,

In THEORY and PRACTICE.

CONTAINING

The PHARMACOPOEIAS of the Royal Colleges of *London* and *Edinburgh*, and many other Simples and Compoſitions, diſpoſed according to their Nature and Virtues, under different Claſſes:

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To the Whole is ſubjoined,

An INDEX of DISEASES and their REMEDIES, with an Alphabetical CATALOGUE of all the Simples and Compoſitions, ſhewing the Page, Claſs, Denomination, Part uſed, and Doſe.

The Whole is collected from and compared with the beſt MEDICAL WRITERS.

BY WILLIAM SMITH, M.D.

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THE

PREFACE.

THIS work, which is now preſented to the public, is deſigned as a General Syſtem of Phyſic. It begins with the nature of the ſolids and fluids, which are the ſeat of all diſeaſes, and, when properly underſtood, ſerve as a key to the perfect knowledge of phyſic; for the regular treatment of every diſeaſe, depends upon a perfect knowledge of the ſtate of the ſolids and fluids; and a practice founded upon this ſolid baſis, cannot poſſibly fail of meeting with ſucceſs.

The nature, ſymptoms, and method of cure, of every particular diſeaſe, with the proper medicines, are mention'd, as they naturally fall in under the regular diviſion of this book, which contains the pharmacopœias of the royal colleges of London and Edinburgh, according to the lateſt editions; and both the ſimples and compoſitions are claſſed according to their nature and virtues. To each diviſion is

added a great variety of uſeful and elegant Formulæ, adapted to every intention of cure, in every diſeaſe incident to the human body. The natural and chymical hiſtory of the Materia Medica, and the medical and pharmaceutic properties of each ſimple, with its doſe, and manner of operation, are explained: ſome of the inſignificant ſimples, ſtill retain'd by the colleges, are neglected; and others, that have come into reputation, inſerted: the compound medicines of both colleges are mentioned, according to their lateſt editions; and to each medicine is ſubjoined an explanation of its nature, virtues, and doſe, beſides the general explanation which is prefixed to each claſs.

Every compoſition is given according to the London and Edinburgh method, and by both names; thoſe of London are diſtinguiſhed by the letter *L.* and thoſe of Edinburgh by the letter *E.* when there is no difference in the name or compoſition, then the letters *L. E.* are prefixed to the name; the few compoſitions mentioned without any letter prefixed to the name, are not yet received into the pharmacopœias; but I rather choſe to mention them in explaining the virtues of the college compoſitions, under which you will find the old name by which the compoſition was formerly diſtinguiſhed, and ſimilar ones of other colleges, and of private practice; but theſe have no new paragraph, and their names are printed in Italics.

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The topical compoſitions I have reſerved for a Treatiſe upon Surgery, which will make a proper and uſeful ſupplement to this work, and will render it a body both of Phyſic and Surgery.

To the whole is added ;

I. An alphabetical index of the Latin names of the ſeveral ſimples.

II. A like index of the compoſitions: theſe indices refer to the page where the ſubject is mentioned, the claſs to which it belongs, and the doſe proper to be adminiſtered.

III. An alphabetical catalogue of ſimples and compoſitions in Engliſh. And,

IV. A general index of diſeaſes and remedies: in which index reference is made to all the various matters treated of in the book.

Thoſe ſimples, which have not the doſe mentioned, are to be made into infuſions, and uſed as tea in large quantities.

The reader is to remember, that the doſes are deſigned for grown people, and therefore ought to be varied according to the ſtrength

ſtrength and age of the patient: to a perſon from fourteen to twenty-one years old, the doſe ſhould be diminiſhed one third, and to one from ſeven to fourteen, the doſe ſhould only be one half, and from three to ſeven one third. A child of two years old ſhould not receive more than one eighth part of a doſe for a grown perſon, and an infant of one year old, one ſixteenth part. Infants, from the time they are born, bear purging and vomiting extremely well; there is no danger in giving a gentle puke, when needful, to an infant the firſt day it comes into the world, and they generally bear a doſe in a larger proportion than what is here mentioned: the beſt vomit for an infant, according to a late judicious writer, is antimonial wine, or tincture, whereof an infant, the firſt day it comes into the world, may receive five drops.

This work is calculated for the uſe of ſtudents and practitioners, who have neither time nor opportunity to read a great variety of books, as it is entirely upon a new plan, which is more comprehenſive than any hitherto publiſhed, and preſents to the reader, in one view, the whole art of phyſic, and affords the phyſician a ſet of valuable and elegant Formulæ, ready proportioned to his hand.

The Introduction contains what is neceſſary of Chymiſtry and Pharmacy, and the manner of compounding and exhibiting medicines.

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This book, it is hoped, will be found a uſeful book to every Apothecary, and not unworthy the notice of a Phyſician, upon the table of whoſe ſtudy it may be found uſeful; but above all it will be found highly neceſſary for every private family, eſpecially thoſe who live in the country remote from any Phyſician or Apothecary, as it makes their garden and fields a ſhop of phyſic, and teaches the nature and virtues of the roots and herbs of their own growth, and alſo how to uſe them, and what quantity to take at a time.

Thus much I thought neceſſary to premiſe, and have only to requeſt the reader, that he would not be too haſty in paſſing his judgment of this work; that he would not be directed by pride, prejudice, or envy; that he would give it a complete reading, and compare impartially its perfections with its imperfections, before he pronounces his opinion. I am ſenſible there are many typographical errors, which are the reſult of too much haſte; but it is hoped there is no error uncorrected that affects the ſenſe.

A NEW

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INTRODUCTION.

I AM not ſo ſanguine as to think, that the following treatiſe will meet with a favourable reception from every perſon, into whoſe hands it may fall; ſome, perhaps, will be pleaſed to call it a ſuperfluous performance, ſeeing ſo much has been already written by more learned men. But I will beg the reader to conſider, that the plan of this book is entirely new, and more comprehenſive than any one that has yet been preſented to the public; as it takes in phyſic in all its parts, and is not only contrived for the uſe of every perſon engaged in the practice, but alſo for thoſe who live in the country remote from any Phyſician or Apothecary.

Many things are contained in the following treatiſe, which are not to be met with in any one book known to me; and indeed ſome obſervations in it are entirely new; others lie ſcattered and diſperſed in many volumes. I humbly hope thoſe learned gentlemen, whoſe writings I have ſo liberally made uſe of, will pardon the freedom: their words are ge-

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nerally ſo expreſſive of their meaning, that I have endeavoured to confine myſelf to them as much as poſſible.

This book, I hope, will be found not only uſeful to thoſe that love knowledge, though unwilling to take pains to ſearch for it, but likewiſe to others, who have neither money to buy, opportunity to borrow, nor time and capacity to read, a great variety of books. Theſe conſiderations, I flatter myſelf, will plead my excuſe for preſenting this comprehenſive tho' imperfect work to the public, at a time when all things are arrived at ſuch ſurpriſing perfection; every thing being complete both in theory and practice — *Complete Bodies of Divinity* — *Complete Hiſtories of England* — *Complete Cookeries* — *Complete Practices of Phyſic*, and ten thouſand other complete things. But I have not the preſumption to tell the reader, that what is now preſented to him is complete; I ſhall be very well ſatisfied to find it not completely uſeleſs. Every diſeaſe, I confeſs, if we believe the puffs of quacks, has already its never failing, certain, infallible, grand ſpecific, or univerſal, ſafe, and ſpeedy remedy, for all ages, ſexes, and conſtitutions: whatever our intention is, we always have an infallible receipt at hand.

When a man looks over the new-papers, and ſees the world furniſhed with infallible cures for every diſeaſe, he would be tempted to think that death was not ſo much as known in this golden æra of perfection; if he did not know, that theſe are mere devices, to catch the credulous, ignorant, and unwary. Indeed 'tis very difficult to ſay, whether one part of the kingdom is arrived at greater perfection in impoſition, or the other in credulity and willingneſs to be impoſed upon.

Certain it is, that quacking has of late years made large advances in this kingdom: but this could not be the caſe, if the credulity of the publick did not bear ſome proportion to, and keep pace with, the avarice and effrontery of empirics.

It is univerſally allowed, that the ſcience of Medicine has been greatly improving for a century paſt: But ſurely thoſe, whoſe rationale (if they have

have any) and preſcriptions are confined to their own cloſets and memorandum books, have no title to the honour of having their names enrolled in the catalogue of improvers of this noble Science. Of ſuch it may too juſtly be ſaid, Not that the welfare of mankind is their firſt and grand purſuit, but their own emolument; to the advancement of which, the degeneracy of the times contributes not a little.

The office of a Phyſician is the higheſt that one man can confer upon another; an office of the greateſt truſt. What availeth a large eſtate, nay a crown or ſcepter, to one languiſhing under a fever, or diſtracted with torturing pain. The noble art of Phyſic excells all other arts and ſciences; and thoſe gentlemen, who have the honour of that profeſſion, ſhould ſhew the dignity of their office by their ſhining characters for true religion, humanity, and learning: they ſhould not ſtoop to do a mean thing; never refuſe to give advice to the poor, nor make a property of the rich. As the Phyſician is like to God in doing good and reliving the ſick, ſo ought he conſtantly to imitate that Being in mercy and juſtice. Conſidering therefore the dignity and truſt of a Phyſician, none ought to be admitted to the ſtudy of phyſic with a view of practiſing, that have not been a certain number of years at ſome Univerſity; if this was obſerved, and at the ſame time if the Apothecary was confined to his ſhop, and not allowed, under a certain penalty, to ſuffer any compoſition to be taken out of it but by a Phyſician's Preſcription, or in wholeſale; if the Chymiſt was confined to his furnace, and the Surgeon to his lancet, which I apprehend the College of Phyſicians has a power to do; then Phyſic would recover its loſt reputation, and the lives of many ſubjects would thereby be preſerved. I might give many reaſons for this my opinion; but it is time to haſten to my ſubject.

All Bodies are divided into ſix claſſes, viz. *Saline*, *Inflammable*, *Metallic*, *Terreſtrial*, *Aqueous*, *and Aerial*; and by means of various combinations of theſe bodies, we have the three grand diviſions of material bodies, called kingdoms, viz. the Vegetable, Animal, and Mineral.

VEGETABLES are organized bodies, containing *oily, reſinous, gummy, and ſaline juices*, differing in quantity and quality, according to the age of the plant, ſeaſon of the year, and the ſoil.

Vegetable ſubſtances, expoſed in cloſe veſſels to the action of fire, are reſolved into acrimonious oils, of an empyreumatic, or burnt, fœtid ſmell; acid ſpirits, and a black indiſſoluble coal, void of ſmell and taſte. Vegetables burnt in the open air, are partly changed into a nauſeous bitter ſoot, moſtly diſſoluble in water or ſpirits of wine, and into aſhes, compoſed of an earth and fixed alkaline ſalt, ſeparable from them by water.

ANIMALS are compoſed of a gelatinous ſubſtance, and a groſs oil or fat: ſome inſects indeed, as the ant, contain an *acid juice*, and ſome of the ſtrong-ſcented animal matters, as caſtor, contain an *eſſential oil*.

Animal ſubſtances, expoſed in a cloſe veſſel to a ſtrong fire, are reduced into a fœtid oil, volatile alkaline ſalt, and black coal; which, being burnt in the open air, is reduced into perfectly inſipid white aſhes.

MINERALS, or the production of the mineral kingdom, are earths, metals, oils, bitumens, ſalts, and ſulphurs.

The mineral earths are alkaline, argillaceous, cryſtaline, gypſeous, and talcy.

The alkaline, abſorbent, or calcarious earths, are reduced by fire to a calx, or freeable ſubſtance, and become thereby extremely acrimonious; water greatly abates their acrimony, and diſſolves a part of them, whereby they acquire an aſtringent, lithontriptic virtue; the argillaceous become viſcid and ductile by water, and are hardened by fire; the cryſtalline are hard bodies, that ſtrike fire with ſteel, and become freeable by fire, and acquire an acrimony thereby; the gypſeous into a ſoft powder; the talcy earths, being of a fibrous texture, more or leſs pellucid, ſmooth, and unctuous to the touch, too flexible and elaſtic to be pulverized, but

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ſoft enough to be cut with a knife, ſuffer by fire a diminution of their fluidity, brightneſs, and unctuoſity.

All theſe mineral earths differ amongſt themſelves in external appearance, hardneſs, &c. but not in their intrinſic qualities. *Metallic ſubſtances* are either perfect metal, as gold and ſilver, or imperfect as quickſilver, lead, copper, tin and iron; or ſemi-metals, as zinc, antimony, and arſenic. They melt in the fire, without ſuffering any change in their qualities, if the air is excluded; and are reduced to their metallic form by cold. By the admiſſion of the air, they gradually turn into a powder, or freeable calx, gold and ſilver excepted. This calx, by a ſtronger fire, proves either volatile, unfuſible, or runs into a vitreous maſs; and this change, wrought upon them by fire, alters their medicinal qualities. The calxes and glaſſes of metals recover their metallic form and qualities, from the addition of any inflammable ſubſtance, not containing mineral acid.

Oils are bodies that take fire and are conſumed; they are divided into three claſſes, viz. animal, vegetable, and foſſile. The animal oils are native and empyreumatic; the vegetable oils are expreſſed, eſſential and empyreumatic.

Expressed Oils, D. ℥ſs to ℥3 are obtained from emollient and nutritious vegetables, certain ſeeds, and the kernels of fruits; by means of the preſs, they agree amongſt themſelves in quality. The expreſſion of oil is greatly facilitated by heat, but the oil becomes thereby leſs ſoft and palatable, and is more ſubject to become rancid; they are groſs, inſipid, and inodorous, loſe greatly of their fluidity by cold and acids, which congeal them; expoſed to heat, they become rancid, and highly acrimonious. Their virtues are to ſoften, lubricate, relax, and allay irritation, and obtund corroſive acrimonious humours; but in an acrid corroſive ſtate, they irritate, corrode, and inflame. Theſe oils have nothing of the peculiar taſte or flavour of the ſubjects from whence they are obtained. The *oil of muſtard-ſeed* is as ſoft, inſipid, and void of pungency, as that of *ſweet-almonds*. When in perfection, they are very nearly

nearly of the ſame quality, and agree in a common emollient virtue. Their ſoftening and relaxing qualities make them uſeful in tenſions, contractions, and inflammations of particular parts; though in inflammations we ſhould not be too forward in giving them, leſt by the heat they become rancid, and thereby fruſtrate our deſign, and increaſe the inflammation: and by obtunding acrimonious humours, they become ſerviceable internally in pains, ſmall inflammations, heat of urine, hoarſeneſs, coughs, &c. in clyſters, for lubricating the inteſtines, and promoting the ejection of indurated fæces. The expreſſed oils, commonly kept in the ſhops, are the *oils of almonds, wallnuts, muſtard-ſeed, palma Chriſti*, &c.

There are oils too made by infuſion and decoction, wherein ſome herb or flower has its virtues drawn out by oil; but oils, impregnated with green herbs, as chamæmile and elder, require long boiling, before they receive that green colour which is required in them; and no oils will bear ſuch management without becoming black, acrid, &c. But ſo few of theſe are made or preſcribed, that they do not deſerve further notice; for it is preſumed, that, at preſent, there are few that expect much more from theſe preparations, than from common oil, which has the advantage of being leſs offenſive. To pleaſe thoſe, who have any faith in their particular virtues, the College has retained ſome; as, *oleum hyperici, abſinthii, anethinum, chamæmeli, liliorum, roſarum rubrarum, rutæ, e mucilaginibus, ſambucinum, viride, oil of St. John's wort, wormwood tops, dill leaves, chamæmile flowers, white lily flowers, red roſes, rue leaves, mucilages, elder, and green oil.*

There are two ſorts of oils obtained by diſtillation from vegetable matters, viz. the *eſſential* and *empyreumatic*.

Essential Oils differ greatly in different ſubjects: they poſſeſs the ſmell and ſometimes the taſte of the ſubject from which they were drawn, and are only obtained from a few vegetable matters; for they are not all proper for this kind of diſtillation. When firſt they are diſtilled, they

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are fœtid, and rather offenſive for medicinal uſe; but by repeated rectifications, they become limpid as water, ſubtile, and highly volatile, of an agreeable fragrant ſmell, and penetrating taſte. *Hoffman* calls them, thus purified, *oleum animale*. By keeping they loſe their flavour, and become groſs and thick; expoſed to the warm air, they become gradually thicker, and at length harden into a brittle concrete of a volatile, pungent, warm, and ſtimulating quality; the admixture of an acid inſtantly produces the ſame change. Conſidered as medicines, they poſſeſs the general qualities of pungency and heat. In cold phlegmatic habits they prove effectual and ſpeedy cordials, almoſt inſtantly diffuſing a grateful warmth through the whole habit, ſtrengthening, conſtringing, and ſtimulating the fibres to more frequent contractions, whereby the pulſe is raiſed, the circulation quickened, the juices attenuated and rendered more fluid; a mild diaphoreſis generally enſues, or an encreaſe of the more ſenſible ſecretions. Hence, in laxity and weakneſs of the veſſels, in a ſluggiſh, inactive ſtate of the juices, languid circulation, deficiency of the natural evacuations, or immoderate diſcharge proceeding from theſe cauſes; in great depreſſions, complaints of cold in particular parts, flatulencies, gripes, epilepſies, intermittents, &c. theſe generous, invigorating, warm medicines, are eminently ſerviceable. They procure a gentle ſleep, which is not ſucceeded by languors, or other inconveniencies. They are hurtful in bilious temperaments, in great tenſity and rigidity of the ſolids, in all hot, inflammatory or febrile indiſpoſitions. Some of theſe oils are accompanied with an unpleaſant flavour; theſe are principally exhibited in hyſteric caſes, and as anthelminthics, &c. others of them are extremely gratefull, and are frequently uſed for reconciling to the ſtomach medicines of themſelves diſguſtfull; many are highly odoriferous, inſomuch as to be in common uſe as perfumes. They are never given alone, on account of their extreme heat and pungency, which in ſome is ſo great, that a ſingle drop, let fall upon the tongue, produces a gangrene eſchar. They are readily imbibed by pure, dry ſugar, and in this form may be conveniently exhibited; ground with eight or ten times their weight of ſugar, they become ſoluble in aqueous liquors, and thus may

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be diluted to any aſſigned degree. They diſolve likewiſe in ſpirits of wine, the more fragrant in an equal weight, almoſt all of them in leſs than four times their own quantity. Theſe ſolutions may be either taken on ſugar, or mixed with ſyrups, or the like. With the addition of water, the oil ſeparates. They are likewiſe externally employed in paralytic complaints, numbneſs, pains, aches, cold tumours, and other caſes where particular parts require to be heated and ſtimulated. The tooth-ach is ſometimes relieved by a drop of one of the more pungent oils, received on cotton, and put into the hollow tooth. The proper doſe of eſſential oil is very uncertain; of ſome, one drop is a ſufficient doſe; of others 8 or 10 may be given without any inconvenience.

Empyreumatic Oils bear little or no reſemblance to the original vegetable, being ſo altered by the proceſs for obtaining them, that they all appear to the ſenſes nearly ſimilar, agreeing in one common burnt, ſtinking ſmell, and diſagreeable acrid taſte, whence they are termed *empyreumatic*. They are obtained from every kind of vegetable matter, and from animal ſubſtances; they are nearly of the ſame qualities, without any of the peculiar flavour, taſte, or virtues of the ſubject which afforded them. By re-diſtilling them a number of times, along with water, they become leſs and leſs diſagreeable, and in this ſtate have been given from gut. 10 to 20, as anodynes and diaphoretics. Some have entertained an high opinion of them in epilepſies, and hyſteric and ſpaſmodic diſorders; in theſe caſes they may perhaps have ſome merit, but not ſo great as to deſerve much notice. The preſent practice rarely employs theſe oils, any otherwiſe than for external purpoſes, as the cleaning of foul bones, for the tooth-ach, againſt ſome kinds of cutaneous eruptions, old pains, and aches, &c. and for theſe not very often, therefore they may be properly enough ranked among the external applications, under the claſs of repellents.

The Fossile Oils, as *Petroleum*, are not of themſelves miſcible either with aqueous or vinous liquors; nor are they ſo eaſily united therewith by the mediation of other bodies, as the vegetable and animal oils are. They

They are coagulated into the conſiſtence and appearance of bitumens, by the admixture of acid liquors; they prove totally ſoluble in pure ſpirit, or give out to it their more ſubtile parts. The coagulated foſſile, or mineral oils, or bitumens, are either totally diſſoluble in pure ſpirit, or give out to it their more ſubtile parts.

Having now conſidered OILS, their *diviſion* and *properties*, I come, in the next place, to ſpeak of *Salt*.

All SALTS are, in their general nature, the ſame, and differ only from one another in the different mixtures and proportions of other elements, as earth, oils, ſulphur, &c. in their particular compoſition, which cement and unite them; from whence ariſe their different degrees of attraction; for alkali and acid are nearly homogeneous terms, tranſmutable into each other.

The *Sal Catholicus* is the parent of all ſalts, and conſiſts of the fineſt and moſt ſubtile parts, perpetually moving in the æther, or firſt element, ſome of which are leſs than others *ad infinitum*. It is to be found along with the *Aer Mephriticus*, in the pores of all bodies, and continually flows through them like an ocean upon the earth, and exerts its power over all, and is the cement, or principle, that unites all bodies, and is the cauſe of *Fermentation* in liquids, and probably of electricity, ſo much talked of, and ſo little underſtood. Different ſalts, received into the body, preſerve their diſtinction in a great meaſure, while they remain in the *primæ viæ*; but when once they mix with the animal juices, their diſtinguiſhing qualities are pretty much confounded, and blended together: for the particular formation and union with the other elements, and their different qualities reſulting from that union, are much, if not entirely, deſtroyed when they come to be blended with the animal juices. Salts generally form themſelves into regular, ſharp, and angular figures, whereby they become more piercing and penetrating; and this regularity of their figures makes it probable, that their particles have plain ſurfaces, which accounts

for their extreme degree of union, or their running eagerly into one another's embraces, as is evident from cryſtallizations. Their volatility and activity ariſe from the ſmallneſs of their parts, and ſharpneſs of their angles; from their greater degree of attraction, than is to be found in other bodies of the ſame bulk, and from their union with light, ſulphur, and ſulphureous bodies; whence they become urinous and animal. The fixed vegetable ſalts, being with our food received into the body, are there ground, and ſubtilized by the force of the animal fibres and ſolids, and acquire a further degree of ſmallneſs and activity; and being mixed with oils and ſulphurs, receive the higheſt degree of ſubtilty and volatility; and, when received in too great a quantity into the human body, and ſo hurried about and agitated, become too ſtrong and powerful for the delicate fibres, and produce thoſe tearing tortures of *gout*, *colic*, *rheumatiſm*, *cancer*, *corroſive ulcers*, *impoſthumes*, *gangreenes*, and *mortifications*, in different parts of the body; the corroding and burning *ichor* of *ſcrophulous* and *ſcorbutic ſores*, fretting, galling, and bliſtering the adjoining parts; *ſwellings*, *hardneſs*, *ſcales*, *ſcurf*, and other loathſome, cutaneous foulneſs; for the ſerum ſtagnating in the obſtructed part, turns greeniſh, highly acrid and poiſonous, ſending out poiſonous ſteams, which ariſe from putrefaction, and is a ſulphur and an acid combined.

Salts alſo produce the white, gritty, chalky matter, and hard, ſtrong, flinty concretions, which attend gout, gravel, jaundice, or colic; and obſtructions, hardneſſes, putrefaction, and mortification in the bowels, joints and membranes, rottenneſs in the bones, ligaments, &c. at laſt a torturing, loathſome, tedious, and lingering death. The very learned Sir *John Pringle* makes an obſervation, which deſerves every body's attention, which is, that the fætor of carious bones is not to be imputed to the marrow (as was formerly believed) ſince the marrow putrifies but ſlowly, and, when putrid, tends more to a rancid than a cadaverous ſmell; and therefore I am inclined to refer the rankneſs to one of theſe three following cauſes, if not to a combination of them all: The firſt may be the

the porouſneſs of the bone, which retains the corrupted matter longer than any ordinary ſore: The ſecond, the more conſtant oozing of veſſels conveying the red blood; for when theſe are broken in the boney ſubſtance, they do not contract ſo ſoon as in a common ulcer; and the red blood admits of a higher degree of corruption than the ſerous: The laſt, the oſſeous matter crumbled to powder, being an abſorbent earth, may act like chalk, or the teſtacea, and ſo heighten the putrefaction both of the ſmall veſſels, and the matter of the ſore.

The immediate ſenſible effects of poiſons, beyond the animal ſalts, are owing to their greater firmneſs and ſolidity, whereby a greater quantity of ſalts is contained in the ſame ſpace, than can poſſibly be of animal ſalts; becauſe poiſons are cemented, and cloſely compacted together by hard terreſtrial parts; whereas ſalts are united with a greater quantity of porous light and ſulphur, and ſo cannot become ſo compact, and lodge ſo great a quantity of ſalts in an equal ſpace. Salts are therefore more or leſs hurtful, according to the ſmallneſs and ſharpneſs of their angles, which are like ſo many lancets; but when ſheathed by the animal oils are ſafe, and neceſſary to excite and forward the contraction of the ſolids; but when crouded in too great numbers and quantities, and received into the fineſt veſſels, and there having time to drop their oils, they unite and cryſtalize in greater volumes and quantities, and thereby acquire the nature and qualities of poiſons; and being hard and compact, rend, tear, and deſtroy the animal fibres. But theſe bad effects only ariſe from the immoderate uſe of ſalt and ſalt proviſions. When judiciouſly uſed, they are uſeful medicines; and the learned Sir *John Pringle* has ſufficiently proved, that all ſalts are ſtrong antiſceptics; the acid and the volatile are moſt ſo, and the fixed alkali next; and the neutral are leaſt of all antiſceptic; but ſea ſalt rather promotes putrefaction, than prevents it, which is contrary to the opinion generally received and entertained of it.

As ſalt is the cement of all bodies, hence we find it in the *vegetable*, *animal*, and *mineral* kingdoms. Vegetables afford three kinds of ſalt, an acid or eſſential, a fixed, and a volatile ſalt; animals two, viz. a volatile, and fixed alkaline ſalt; minerals afford one kind, viz. an acid ſalt, which may be divided into SIMPLE and COMPOUND. The SIMPLE ſalts are ſubdivided into *acid* and *alkaline*. The acid contains the *vitriolic*, *nitrous*, *muriatic*, and *vegetable*. The alkaline contains the *fixed* and *volatile*, which are either vegetable or foſſile.

The COMPOUND SALTS contain the *neutral*, *metalline*, and *terreſtrial*.

There are three kinds of the acid ſalts peculiar to the mineral kingdom, viz. the *vitriolic*, *nitrous*, and *marine*, all highly corroſive, unleſs largely diluted: mixed with vinous ſpirits, they raiſe a violent ebullition, from which noxious fumes ariſe, and the acid is thereby diluted and obtunded. They efferveſce ſtrongly with alkaline ſalts, and thereby form neutral ones, having neither an acid nor an alkaline quality.

The *vitriolic acid*, as *acidum primogenium*, *catholicum*; *æthereum*, *ſulphureum*, *alumenoſum*, *oleum vitrioli*, *ſpiritus ſulphuris per campan.* is found in many native bodies, as in *Sal Glauberi nativus*; in all metallic ſalts, which have iron, copper, or zinc for their baſis: in all terreſtrial ſalts, which are united either with alum or the calcarious earth; in ſulphur, in many medicinal waters, in the atmoſphere, and in electrical fire; but it is chiefly obtained either from green vitriol, or ſulphur. Its purity is judged of by its ſpecific gravity, and pellucid colour; is the ſtrongeſt of all acids, and moſt ponderous of liquids: it is to water as 18 to 10: the addition of a ſmall quantity of inflammable matter, deſtroys its acidity, and changes it into a ſolid, inſipid concrete, which is the common ſulphur of the ſhops. When the mixture is haſtily made, it raiſes a violent ebullition, attended with a copious diſcharge of noxious fumes; whence ariſes æther: combined with mineral, alkaline earths, it forms an inſipid, ſcarce diſſoluble cryſtalline maſs; with fixed alkaline ſalts, a neutral

ſalt,

ſats, likewiſe very difficultly ſoluble; with alkaline ſalts and earths, duly prepared, it compoſes ſalts of eaſy ſolution, as *Sal Glauberi Catharticus*, bitter purging ſalt of mineral waters; the auſtere, aſtringent, ſalt *alum*. It diſſolves iron and copper; unites with all metals by means of heat; corrodes animal and vegetable bodies, inſomuch as not to be ſafely touched, unleſs largely diluted, and mixed with ſuch ſubſtances, as abate its corroſion; it prevents fermentation. The volatile vitriolic acid cannot be entirely free'd from ſome foreign ſubſtance: but though it contains leſs acid, yet ſaturates a greater proportion of alkali and abſorbent earth, has greater effects over metals, but leſs over vegetable and animal matters, and ſeems to have leſs affinity with alkali; produces leſs heat, when mixed with water, and leſs cold when mixed with ſnow; and thrown into the fire, it emits a ſulphureous vapour.

Nitrous Acid, as *Spiritus Nitri*, *Aqua Fortis*, *Spiritus Nitri Glauberi*, are obtained either from native nitrous ſalts, or from earths impregnated with vegetable, or animal matter, is volatile, and for the moſt part of a reddiſh colour, next in ſtrength to the vitriolic, and has the next greateſt ſpecific gravity; effervesces violently with oils and vinous ſpirits; mixed with inflammable matter, it deflagrates, upon being heated red hot; with alkaline ſalts, it compoſes nitre; with volatile alkali, a volatile nitre, ſoluble in ſpirit of wine; and, with alkaline earths, forms a bitter or acrid concrete, which deliquifies in the air; it diſſolves moſt metals, and corrodes tin and antimony; mixed with water raiſes leſs heat than the vitriolic acid; but with ice and ſnow, occaſions a greater degree of cold than the vitriolic; does not ſo ſuddenly coagulate the blood as the vitriolic acid; but more quickly diſſolves the ſolid parts of animals and vegetables; and increaſes inflammation.

Muriatic Acid, as *Spiritus Salis Marini*, *Spiritus Salis Gemmæ*, *Spiritus Salis Ammoniaci*, *Spiritus Salis Glauberi*; is the weakeſt of the mineral acids, but ſtronger than any of the vegetable. Is obtained from animals,

animals, vegetables, foſſils, ſoot, and common ſalt; is of a yellow colour, contains ſome particles of oil; its ſpecific gravity is to water, as 12 to 10; eaſily unites with vinous ſpirits; but with great difficulty with oils; readily exerts its effects upon metallic bodies, and produces the changes with water and ice, as other acids, but in a much ſlower degree; mixed with fixed alkaline ſalts, it forms a neutral, ſimilar to ſea ſalt, with alkaline earths, a highly pungent ſaline liquor, which either does not cryſtalize, or whoſe cryſtals deliquiate in the air. It has a greater affinity to metalline bodies than any other acid; for it diſlodges every other acid from metalline ſubſtances. In the *Corroſive Sublimate*, all the three go to its compoſition, as is ſuppoſed, yet upon examination, it contains only the muriatic.

VEGETABLE ACID, or ESSENTIAL SALT, as *Sal Eſſentiale Acetoſæ*, &c. and ſuch like auſtere, aſtringent and bitter plants, as contain but a ſmall quantity of oily matter, is obtained by depurating the juices of the reſpective plants, and then evaporating till one third only remains, which is to be ſtrained through a flannel bag, and exhaled, till a pellicle concretes upon the ſurface, then it is to be put into a cold place, with a little of the *oil* of *cloves* poured upon the top to cryſtalize; the ſalt then is taken and gently waſhed and dried for uſe. Thoſe extracted by an aqueous menſtruum partake largely of oil, whilſt thoſe extracted by rectified ſpirit of wine are more pure: but the proceſs for obtaining theſe ſalts is very tedious, taking up no leſs than ſeven or eight months; and the quantity of ſalt is extremely ſmall; hence they are hardly ever made or expected in the ſhops. Their place may be ſupplied by *Spiritus Mindereri*. They do not poſſeſs the virtues of the ſubjects entire; and are almoſt all of them nearly ſimilar to whatever plant they are obtained from, and are at beſt no more than a very impure ſpecies of volatile nitre; that is, a ſalt made by ſaturating the ſpirit of nitre with volatile alkaline ſalt, and cryſtalizing the liquor. Their qualities are diuretic and deobſtruent, from their

their reſolving the viſcidity of the blood and juices. They unite with copper, zinc, and lead; raiſe heat upon being mixed with other acids, with alkalines or metals; diſſolve calcarious earths; are not eaſily ſeparable from water, which they ſuck in when dry. There are, beſides what are procured by the above means, an animal acid, an acid of borax, of arſenic, and an electrical acid.

ALKALINE SALT FIXED. D. *gr.* 3 to 31. *Pot-aſhes, Pearl-aſhes, Sal Tartari, Sal Abſinthii, Nitrum Fixum*, &c. is obtained by calcining vegetables; it attracts the air, and becomes liquid; unites with vinous ſpirits, and precipitates to the bottom, when water is added; promotes the fuſion of metals, and diſſolves many of them; but all minerals are leſs diſſolved by it. In chymical ſhops we meet with fixed ſalts of a great many plants; but the practitioner, who expects to find any real difference amongſt them, deceives himſelf; for, let the plant be what it will, before it is reduced to aſhes, the fire brings it to that texture, and make of parts, into which it reduces any other: ſo that a ſalt, made from the lixivium of any vegetable aſhes whatſoever will always be the ſame, and not diſtinguiſhable one from another, at leaſt in their effects, as medicines, in which they agree with ſalt of tartar. The ſhops were formerly burdened with a great number of theſe ſalts, which are now very judiciouſly rejected, and retain few more than the ſalt of wormwood, and ſalt of tartar. All fixed alkaline ſalts are antiſceptic, but not ſo powerful as volatile ſalts. Theſe ſalts have an acrimonious, fiery taſte; they render vegetable oils and reſins, and animal fats, ſoluble in water, and liquify all the animal juices, except milk. Taken into the body, they ſtimulate and deterge the ſolids, attenuate the fluids, diſſolve viſcid tenacious matter; and, by theſe means, open obſtructions of the veſſels, and promote the natural ſecretions. A diluted ſolution of them, drank in bed, generally excites a copious ſweat: by walking in the cool air, its action is determined to the kidnies. Taken for ſome time, in proper doſes, proves an excellent remedy for coſtiveneſs, eſpecially if a few grains

grains of aloes be occaſionally interpoſed. This medicine has an advantage over all other purgatives and laxatives: that when the complaint is once removed, it is not apt to return again. Theſe ſalts are moſt ſerviceable in cold phlegmatic habits, and where aſcidities abound in the *primæ viæ*. They powerfully abſorb acids, and unite with them into mildly aperient neutral ſalts. In a colliquated, acrimonious ſtate of the fluids, where there is any inflammation, they are manifeſtly prejudicial, as in that ſtate of the body they promote putrefaction. The *alkaline earths* abſorb aſcidities in the *primæ viæ*, the *argillacious*, ſoft, acrimonious humours, whilſt the other earths, viz. the *Cryſtaline*, *Gypſeous*, and *Talcy*, diſcover themſelves poſſeſſed of no medicinal virtues, and prove injurious, rather than beneficial to the body.

The ALKALINE SALT FOSSILE, D. gr. 5 to ℈ı, as *Nitrum vel Natrum*, is a native production, found in greateſt plenty in *Aſia* and *Africa*; is obtained from ſea ſalt, *Sal Glauberi*, borax, mineral, water, plants growing at the ſea-ſide, old walls, &c. It differs little from vegetable alkali; but that being mixed with acids, produces a neutral ſalt; is good in inflammations, deliriums, heat of urine, ſtrangury, ſpitting of blood, acrimonious ſtate of the juices, &c.

ALKALINE SALT VOLATILE, Dr. gr. 3 to 10. Is obtained from all bodies, both animal and vegetable, by diſtillation, and from ſal ammoniac. Animal matters render a very ſmall quantity of this ſalt. Till after putrefaction this ſalt ſtrongly attracts the air: is moſt commonly in a cryſtaline ſtate; is mild in a ſolid form, but in a fluid ſtate extremely pungent and acrimonious; applied to the ſkin, and prevented from evaporating, it inflames the parts, and acts as a cauſtic; diſtilled with ſulphur, produces *Tinct. Sulph. Hoffmanni*. All alkalies are mild in a ſolid ſtate; and in this ſtate, mixed with acids, effervеſce, and form a neutral ſalt, but not when cauſtic; with ſalts, form a *Soap*; with ſulphur, *Hepar Sulphuris*: when dry and cauſtic, they produce heat, when joined with

with acids or water; when cryſtalized, they produce cold; they prevent fermentation, and are the ſtrongeſt antiſeptics of all the ſalts. Muſtard-ſeed contains no fixed alkaline ſalt, but a conſiderable quantity of a volatile one. Soot, and all vegetable matters, when putrified, yield a ſmall quantity of volatile ſalts, and a large quantity of fixed ſalt. Animal ſubſtances, on the other hand, render a great deal of the volatile, and leſs of the fixed ſalt; the gelatinous parts moſt, and the oily leaſt. The ſalts, procured from different animal matters, are the ſame in all their ſenſible qualities, and agree, in many reſpects, with the fixed ſalt of vegetables: the principal difference is their volatility. Volatile ſalts liquify the animal juices, diſſolve coagula, made from them, by acids; ſtimulate the nerves; attenuate viſcid humours; promote a diaphoreſis, and other natural ſecretions; abſorb acidities in the *primæ viæ*; cure the heart-burn; are good in lethargic, apoplectic, and hydropical caſes, when there are no ſymptoms of inflammation; good in hyſteric languors, lowneſs of ſpirits, faintings, head-achs, inflation of the ſtomach, and flatulent cholics, with the ſymptoms that attend them; diſorders of the inteſtines, from eating fruit, and other aceſcent diet: They are generally more ſerviceable to aged people, and phlegmatic habits, than in oppoſite circumſtances. In febrile and inflammatory caſes they are hurtful, and forward putrefaction, except in thoſe kind of fevers that are attended with a cough, hoarſeneſs, and redundancy of phlegm. The difference in volatile ſalts ariſes from their being more or leſs loaded with oil, and not as they are produced from this or that animal ſubſtance: they may therefore be uſed promiſcuouſly. The proper form for exhibiting volatile ſalts, and indeed all volatile bodies, is in draughts properly diluted.

NEUTRAL SALTS are *Tartarum Vitriolatum, Sal Glauberi, Sal Ammoniac. Vitriol, Nitrum Commune, Nitrum Cubicum, Sal Ammoniac. Nitroſ. Sal Digeſtivus Silvii, Sal Communis, Sal Ammoniacus Communis, Tartarum Regeneratum, Sal Rupellenſis, Sal Ammoniacus Vegetabilis.*

The TARTARUM VITRIOLATUM is a vitriolic acid combined with a vegetable alkali, as *Sal Enixum Paracelſi*, *Sal de duobus*, *Arcanum Duplicatum*, *Sal Polychreſt.* *Nitrum Stibiatum*, *Panacea Duc. Holſat.* *Nitrum Vitriolatum.* It for the moſt part forms cryſtals with ſix ſides; preſerves its dryneſs even in a moiſt air, and requires a large quantity of water to diſſolve it; is not at all ſoluble in vinous ſpirits.

The SAL GLAUBERI is a vitriolic acid, combined with a foſſile alkali; its cryſtals are of the hexagon form; do not diſſolve in a dry air, but are ſoluble in an equal weight of water; fuſible in ſmall heat, in which it differs from the *Epſom* ſalt, which is not fuſible in any degree by heat.

The SAL AMMONIACUS VITRIOLICI, is vitriol acid combined with a volatile alkali, an artificial production diſcovered by *Glauber*; its cryſtals are harder than thoſe of the common ammoniac, and of a different form; is not ſoluble in vinous ſpirits, and with difficulty in water.

The NITRUM COMMUNE is a nitrous acid, combined with a volatile alkali; is an artificial production, frequently brought from the *Eaſt Indies*; its cryſtals repreſent priſms of ſix ſides; with difficulty becomes liquid, but is fuſible in a moderate degree of heat.

The NITRUM CUBICUM is a nitrous acid united with an alkaline foſſile; differs little in ſtrength from the common nitre; its cryſtals are rather of the rhomboidal figure.

The SAL AMMONIAC. NITROS. is an artificial production, from a mixture of nitrous acid, and volatile alkali; is ſoluble in ſpirit of wine; is fuſible, and explodes by fire.

The SAL DIGESTIVUS SILVII is a production of art; differs little from common ſalt, and is *Spiritus Salis Marini Coagulatus*, Collegii Lond.

The

The SAL COMMUNIS, as *Sal Gemmæ*, *Sal Marinus Muria*, is a compound of a muriatic acid, and an alkaline foſſile; if pure, it ſuffers no change from the air.

The SAL AMMONIACUS COMMUNIS is a combination of muriatic acid with volatile alkali; is obtained from ſoot by ſublimation or ſolution; is ſoluble in water, and vinous ſpirits; liquifies in the air, and is fuſible in a moderate heat.

The TARTARUM REGENERATUM, as *Tartarum Solubile*, *Sal Diureticus*, is a vegetable acid, and vegetable alkali combined; is ſoluble in vinous ſpirits; unites with oils, gums, and reſins; and renders metals ſoluble in vinous ſpirits.

The SAL RUPELLENSIS is a mixture of a vegetable acid, and a foſſile alkali; does not become liquid ſo ſoon as *Tartarum Regeneratum*.

The SAL AMMONIACUS VEGETABILIS, as *Spiritus Mindereri*, is a vegetable acid united with a volatile alkali; is obtained in great perfection from *Ammoniac. Vitriolic.* with *Tartar. Regenerat.* It eaſily liquifies, and is ſoluble in water and vinous ſpirits.

Having now ſaid what I judged neceſſary, in this place, concerning ſalts, their diviſion, and general properties; I come next to conſider *Liquids*.

VINOUS and SPIRITUOUS LIQUORS are produced from vegetable matters, by fermentation, or diſtillation; they tend, in proportion to their degree of ſpirituoſity, to thicken the fluids, ſtrengthen and conſtringe the ſolids, and thereby prevent or reſtrain immoderate evacuations. Wines are changed, by a continuation of the proceſs which produced them, into an uninflammable, cooling, acid liquor, *vinegar*; the more ſpirituous the wine, the more acid the vinegar. If the operation is further continued, it becomes almoſt inſipid, and at length is turned into a putrid matter.

Wines, *Tinctures*, *Elixirs*, and *Vinegars*, are for exhibiting medicines of the greateſt efficacy, which are to be continued for a length of time, in the moſt eaſy and familiar manner.

DISTILLED WATERS of the ſhops are of two kinds, viz. *Simple Diſtilled Water*, and *Diſtilled Spirituous Water*. The firſt is diſtilled with water, the other with ſpirit of the proof ſtrength, or ſpirit having an equal admixture of water. The *Edinburgh* College calls thoſe *Simple Waters*, that are only diſtilled from one ingredient; and *Compound Waters*, thoſe that are diſtilled from ſeveral ingredients, without any regard to the vehicle.

By diſtilled ſpirits are underſtood ſuch as are drawn with a ſpirit previouſly rectified, or which is reduced nearly to this ſtrength in the operation. Diſtilled liquors owe the flavour and quality they acquire to a portion of the eſſential oil, elevated and mingled with it: The virtues, capable of ariſing in this proceſs, are thoſe only which conſiſt in warmth, pungency, ſmell, or flavour; and ſuch ſubſtances as are eminently endued with theſe, are proper ſubjects for diſtilled waters to be drawn from; as ſpices, warm ſeeds, and berries; fragrant herbs, flowers, fruit, and ſome of the acrid plants; for the virtues of the aromatic, fætid, and moſt of the acrid plants, reſide in their eſſential oil and reſin; cathartic, emetic, aſtringent, bitter, ſweet, cooling, balſamic, emollient, nutritious, or narcotic qualities, are in vain expected to come over the helm: but whatever properties any ſimple has in the groſſer and more ſolid of its parts, where it acts as an emetic, cathartic or aſtringent, the reſiduum, or what is left after diſtillation, remains in full poſſeſſion of them. A great number of the *Simple Diſtilled Waters*, kept in the ſhops, are at preſent only conſidered, as agreeable diluters, or as vehicles for medicines of greater efficacy. Very few are deſigned to be depended upon by themſelves, in any intentions of conſequence. As the flavours and virtues of diſtilled waters are owing to their being impregnated with a portion

portion of the eſſential oil of the vegetables from which they are drawn, ſpirit of wine is the proper menſtruum for theſe oils, and not only diſſolves them, when previouſly ſeparated from the ſubject, by means of art, but likewiſe extracts them from the other matters, with which they are combined in the original plant, though ſome ſubſtances will give over their virtues to water, that impart little, if any, to ſpirit of wine, & *vice verſa:* This is owing to the different degrees of volatility of ſpirits and water, and the lightneſs, or ponderoſity of the oils themſelves; many of which are too heavy to riſe with the greateſt degree of heat that ſpirit of wine can receive; whilſt they readily give way to one, capable of elevating the leſs volatile liquor *water*. This ſhews the great care that ought to be taken to examine the fitneſs of ſimples for diſtillation, and the ſuitableneſs of the vehicle. The general virtues of vinous ſpirits I ſhall more particularly mention, when I ſpeak of rectified ſpirit of wine, in a ſucceeding part of this performance. The ſpirituous and ſpirits impregnated with the volatile oil of vegetables, join the aromatic, cordial, or other virtues, which reſide in the oils, to what they have in common with other ſpirituous liquors.

GUMS and MUCILAGES are glutinous ſubſtances, of no particular ſmell or taſte, readily diſſoluble in water, and when ſoftened with a little water, unite with oils, and the thicker balſams. *Inſipid Gums*, *Mucilages*, and *Sweets*, contain nothing that can be exhaled, without ſuch a degree of fire, as changes or deſtroys their original qualities.

RESINS differ greatly in different ſubjects; in them the virtues of the aromatic, fætid, and moſt of the acrid plants reſide; as alſo the purgative, emetic, bitter, and aſtringent qualities are generally contained; the aſtringent, ſimple, bitter, and purgative bitter parts, diſſolve in water and rectified ſpirit; taſteleſs purgatives, and emetic ſubſtances, only in ſpirit of wine. The *aromatic*, and *odorous* reſins, contain an eſſential oil, which exhales by the heat of boiling water. Both *Extracts* and

Reſins

Reſins are procured from vegetable ſubſtances; and we have accordingly mentioned them under each ſimple, as they occurred: the former is obtained by water, the latter by rectified ſpirit of wine, which retains the aromatic flavour and virtues of the vegetable, while the former loſes both: they are nearly of the conſiſtence of honey.

JUICES are of two kinds, viz. *fermented* and *expreſſed.*

SWEET VEGETABLE JUICES, or SOLUTIONS, made in water, expoſed to a gentle warmth, ferment, loſe their ſweetneſs, and are converted into a vinous liquor, which yields, in diſtillation, an inflammable ſpirit; a production very different in quality from the liquor employed at firſt. The native juices of fruits attenuate the animal fluids, and relax the ſolids, and prove ſerviceable, aperient medicines; but, if imprudently taken, bring on dangerous fluxes, whilſt vinous and ſpirituous liquors have the contrary effects, as has been already mentioned.

JUICES are obtained from recent plants, &c. by *Expreſſion*; thus the ſubject is firſt cut, or moderately bruiſed, then included in a hair bag, and committed to the preſs. After colature and proper clarification, theſe liquors are thin, limpid, and fit for medicinal purpoſes, and are kept in bottles; and thoſe that are not injured in their virtue, by gentle evaporation, are advantageouſly inſpiſſated to the conſiſtence of a ſyrup or honey, or even that of a ſolid extract; for extracts are likewiſe prepared from certain vegetable ſubſtances, by means of water, which is firſt boiled on the ſubject, till ſufficiently impregnated with its virtues: the decoction is paſſed through a ſtrainer; when cold, decanted and evaporated to a pilular conſiſtence. This proceſs affords ſome of the more active parts of plants, free from the uſeleſs indiſſoluble earthy matter, which makes the largeſt ſhare of their bulk. Some vegetables are very fit, and yield all their virtues to this operation, whilſt others are very unfit, and ſcarce yield any of their virtues to this treatment; the ſweet, glutinous, emollient, cooling, bitter, auſtere, and aſtringent virtues, are totally extracted by

by boiling water, and remain almoſt entire after evaporation. Thus gentian root, which is almoſt ſimply bitter, yields an extract poſſeſſing, in a ſmall volume, the whole taſte and virtues of the root. Wormwood, which has a degree of warmth, and ſtrong flavour, joined to the bitter, loſes the two firſt in the evaporation, and gives an extract not greatly different from the foregoing; but the odour, flavour and aromatic qualities of vegetables are either not extracted at all, or exhale with the menſtruum. Thus the aromatic quality of cinnamon is diſſipated by this treatment, and its aſtringency only remains: whilſt an extract, made from the flowers of lavender and roſemary, diſcovers nothing of the ſmell, taſte or virtues of the flowers. But if you uſe rectified ſpirit of wine, inſtead of water, you will obtain, beſides the ſweet, bitter, aſtringent, or pungent matter of the plants, their flavour, odour, and aromatic virtues, and this menſtruum does not readily carry them off in exhalations. When rectified ſpirit of wine is uſed, the matter is called reſin, or a ſpirituous extract. Hence the reſin, or rather the ſpirituous extract of wormwood, contains the warmth and flavour, as well as bitterneſs of the herb; one, from cinnamon, poſſeſſes its warm aromatic virtue, as well as aſtringency; and one, from lavender, and roſemary flowers, retains the flavour and virtues of the ſubject. But yet we muſt obſerve, that, though rectified ſpirit is a proper menſtruum for the pure volatile oil, and groſſer reſinous matter of vegetables, and water only for the mucilaginous and ſaline; yet theſe properties are in almoſt all plants ſo intimately united together, that which ever of theſe liquors is applied firſt, it will take up a portion of what is only directly ſoluble in the other: hence ſundry vegetables, extremely reſinous, and whoſe virtues conſiſt chiefly in their reſin, afford nevertheleſs very uſeful extracts with water, though not equal to thoſe obtained by a prudent application of ſpirit. As *Conſerves*, *Preſerves*, *Juices*, *Extracts*, and *Reſins*, are ſo eaſily obtained from the ſubject, I have particularly taken notice of them, in treating of their reſpective ſimples.

CONSERVES are compoſitions of recent vegetable matters and ſugar beat together, and united into a ſmooth, uniform maſs; a contrivance deſigned to preſerve certain ſimples, undried, in an agreeable form, with as little alteration in their nature and virtues as poſſible; nevertheleſs ſeveral ſubſtances, as aſtringent, mucilaginous bodies, and flowers of a fine and delicate texture, &c. almoſt entirely loſe their peculiar qualities by this treatment; and indeed there are but few that can be exhibited, under this form, to any advantage. The preſent practice chiefly conſiders them as auxiliaries to medicines of greater efficacy, and as intermediums for joining together, and rendering them more palatable. They are very convenient for reducing into boluſes, pills, or electaries, the more ponderous powders. The ſhops formerly were incumbered with conſerves, altogether inſignificant; but the few now retained, have either an agreeable flavour to recommend them, or are capable of anſwering ſome uſeful purpoſe as medicines: the common doſe is about the ſize of a nutmeg, or more.

PRESERVES are made by ſteeping or boiling recent ſimples, firſt in water, and then in ſyrup, or ſolution of ſugar: the ſubjects are afterwards kept moiſt in the ſyrup, or taken out and dried, that the ſugar may candy upon them, which is the moſt uſual method. Moſt of the preparations of this ſort are conſidered rather as ſweet-meats, than as medicines, and are chiefly prepared by confectioners.

SYRUPS are rather thinner than honey, and are very uſeful vehicles for exhibiting medicines of more efficacy, as the lighter powders into bolus or electary, and for ſweetening draughts: but few Phyſicians truſt them alone, without ordering ſome other medicines to accompany them: Indeed we conſider ſyrups as means of joining other things of greater efficacy together, and to give to other forms a conſiſtence, and a convenience of taking; moſt of them may have their uſe, but little more can be ſaid in their favour.

As

As there are many ſimples uſeful in phyſic, which cannot commodiouſly be exhibited by themſelves; we are obliged to uſe proper menſtruums for the eaſe and convenience of taking them. To underſtand then the mixture of ſolid bodies with fluids, into one ſeeming homogeneous liquor, it will be neceſſary to ſay a few words upon it in this place. The diſſolving fluid is called the menſtruum or ſolvent, and is either water, vinous ſpirits, oils, acids, or alkaline liquors. When one body refuſes to combine with another, it is called neutral with reſpect to the other.

WATER is a menſtruum for ſalts, vegetable gums, and animal gellies. When water is fully impregnated, or ſaturated, with one ſalt, ſo as to become neutral to any additional quantity, it will take up a conſiderable portion of another. When the vegetable gummy reſins are triturated, then are they taken up by water, and form a turbid milky liquor. Solutions made in water poſſeſs all the virtues of the body diſſolved. Metals fuſed with a compoſition of ſulphur, and fixed alkaline ſalts, zinc excepted, become ſoluble in water.

RECTIFIED SPIRIT of WINE is a menſtruum for eſſential oils, reſins of vegetables, pure diſtilled oils of animals, and ſoaps, though it does not act upon the expreſſed oils, and fixed alkaline ſalts, of which the ſoap is compoſed. By the aſſiſtance of heat, it diſſolves volatile alkaline ſalts, and neutral, compoſed of a fixed alkaline and acetous acid, as *Sal Diureticus*, or of a volatile alkali, and nitrous acid. Solutions made by rectified ſpirit, like that by water, retain all the virtues of the diſſolved body.

OILS diſſolve vegetable reſins, balſams, wax, animal fat, mineral bitumen, ſulphur, and certain metallic ſubſtances, as LEAD. The expreſſed oils are more powerful menſtrua than the diſtilled. Oils, however, vary the quality of ſolutions made of acids or alkali. They unite with water by means of ſugar, gum, mucilage, or the yolk of an egg:

with alkaline ſalts they unite with aqueous and vinous liquors, and with the latter become an uniform tranſparent liquor. Eſſential oils, digeſted with volatile alkaline ſalts, undergo various tinges of colour, &c.

Acids diſſolve alkaline ſalts, alkaline earths, and metallic bodies; though all acids do not diſſolve all metals. The vegetable acids diſſolve a conſiderable quantity of zinc, iron, copper, and tin, and extract ſo much from antimony, as to become powerful emetics: they likewiſe diſſolve lead, if previouſly calcined by fire, or corroded by their ſteam. The *marine acids* diſſolve zinc, iron, and copper; and though they do not act upon any of the reſt, yet may be combined with them all, except gold. They are themſelves, as all other ſalts are, ſoluble in water, and ſome of them in rectified ſpirit of wine. The *nitrous* acids are a menſtruum for all metals, except gold and antimony, which are only ſoluble in a mixture of nitrous and marine. The *vitriolic acids* diſſolve zinc, iron, and copper, and corrode, or imperfectly diſſolve moſt other metals.

Alkaline Lixivia diſſolve oils, reſins, animal fat, and ſulphur, and render them ſoluble with water: their action is greatly promoted by the addition of quick lime. *Fixed alkaline Salts*, and *neutral* ones, compoſed of alkaline ſalts, and vegetable acids, or alkaline earth, and any acid, vitriol excepted; and ſome metallic ſalts, butter of antimony, &c. being expoſed for ſome time to a moiſt air, attract ſo much humidity, as to become liquid. This kind of ſolution is called *Deliquification*. Fixed alkaline ſalts deepen the colour of ſpirituous tinctures, but they greatly injure the flavour of aromatics, and ſometimes ſuperadd a quality contrary to the intention of the medicine, and do not at all promote the diſſolving power of the menſtruum, as ſome ſuppoſe. If the alkali is added after the ſolution, it will heighten the colour, as much as when mixed with the ingredients at firſt. *Volatile alkaline Salts* promote the action of the ſpirit, while acids almoſt univerſally weaken it. Volatile alkaline ſalts are themſelves ſoluble in ſpirit of wine.

DECOCTIONS and INFUSIONS are undoubtedly applicable to valuable purpoſes, in medicine, as they may be made to contain, in a ſmall compaſs, the fine, more ſubtile and active principles of vegetables, in a form readily miſcible with the fluids of the body; for water, which is the menſtruum here, extracts the gummy, mucilaginous, and ſaline parts of vegetables, and is a proper menſtruum for glutinous and aceſcent plants: and though the reſinous and oily principles, of themſelves, are not ſoluble in water, yet they are in moſt plants ſo extremely blended with the gummy and ſaline, as to be readily taken up with them. The action of this menſtruum varies, according to the nature of the ſubject. Aromatic herbs, when moderately dried, yield their lighter, more fragrant, and agreeable parts in a few hours to cold water; and the ſame liquor, poured upon freſh parcels of the herb, becomes ſtronger, richer, thick, unctuous, and balſamic: Hence theſe ſaturated liquors may be made of any ſtrength. The compact reſinous woods, roots and barks, give out their virtues moſt freely when freſh; when dry, they require the force of boiling, by which their volatile parts are diſſipated and loſt. Spices and warm ſeeds, of our own growth, when dry, ſcarce give out their virtues, without ſuch a degree of heat as will diſſipate them. Almoſt all flowers impart their own colour to the water; leaves, woods, and roots, generally a different one. Acids change the infuſions of moſt flowers, except the yellow, to a red; and impede the action of the water as a menſtruum. Alkalies change the infuſions to a green colour, and ſomewhat promote the action of the menſtruum.

Different ſubjects require different treatment to make them yield their virtues to water: hence we have four ways of procuring the virtues of plants by water, viz. either by macerating the ſubject in its menſtruum in the cold; by digeſting or circulating them in a moderate heat, with the mouth of the veſſel cloſed, ſo that the ſteam may be condenſed and fall back; or by infuſing the plants in boiling water; or by actually boiling, and then ſuffering the decoction to ſtand till cold.

Though heat promotes the extraction, yet it is injurious to ſome ſubſtances, as *Carduus Benedictus* infuſed in cold water, renders an elegant high ſtomachic bitter; but if the water is hot or boiling, it gives a nauſeous, offenſive taſte; whilſt the *Peruvian* bark yields little of its virtues without boiling. As heat promotes the diſſolving power of liquids, ſo cold diminiſhes it: Hence tinctures and extracts made by a conſiderable heat, depoſit, in cold water, part of their contents, and are proportionably weaker.

As water only takes up the virtues of the mucilaginous and ſaline vegetables, and rectified ſpirit thoſe of the reſinous and oily; ſo a ſubject compounded of gum and reſin, as *Gum Ammoniac*, requires both water and rectified ſpirit, to extract its whole virtues; but *proof ſpirit* is a mixture of both, and takes up all the virtues of a ſubject which *rectified ſpirit* and *water* ſingly diſſolve only in part. Hence, in whatever proportion the ſoluble parts of any vegetable are blended together, a menſtruum may be ſo adjuſted thereto, as entirely to diſſolve the whole, and conſequently to extract all the virtues of the ſubject.

The college has appointed other forms of exhibiting medicines, beſides thoſe already mentioned, viz. *Powders*, *Boluſes*, *Pills*, *Electaries*, *Troches*, and *Lozenges*, &c.

Powders. Nothing ſhould be ordered that may be hurt, in its medicinal virtues, by the previous management neceſſary for reducing things to this form; and whoſe virtues cannot be conveniently preſerved under the form of powder or ſpecies; as viſcid and oily ſubſtances, all volatiles, and fine aromatics; alkaline and volatile ſalts, though the *Sal Succin.* will remain a conſiderable time in this form without loſs. The doſe of moſt powders ought ſeldom to exceed ʒſs. In making up powders into *Pills*, *Electaries*, *Boluſes*, &c. you may uſe ſyrups. Cinnabar, and moſt mercurial and ponderous medicines, are beſt made up with honey,

honey, or conſerves: oily reſinous bodies, as myrrh, galbanum, &c. with ſpirituous liquors, or elixirs.

A Bolus hardly ever ſhould exceed 3ii. A draught ſhould moſtly be confined to ℥iii, and never ſhould be more than ℥iv.

Pills are chiefly deſigned for ſuch things as are too nauſeous to be taken any other way. The medicines exhibited under this form ought to be of ſufficient efficacy, not to make above four or five ſmall pills for a doſe. There are ſome things very unfit for pills, by reaſon of their natural texture and properties, as all volatile ſalts, and moſt fixed ones: The firſt heave and ferment into an unreaſonable bulk, and the laſt render a maſs ſo brittle and crumbly, as makes it very troubleſome to form into pills; but both theſe inconveniencies may, in ſome meaſure, be avoided, by mixing them with extracts and gums. One dram of powders makes pills, N° 12, of an ordinary ſize.

Electaries are of the moſt extenſive uſe of any of the officinal forms, as they take in almoſt the whole medicinal ſimples, which are proper to give in ſubſtance; for, though many ſimples have, from their texture, a natural unfitneſs for ſome forms, yet there are hardly any which are not reducible, one way or other, into this: care is only to be taken to uſe the particular management which ſimples of different textures require, to incorporate them thus together: and ſuch things only are to be put together which will not, by any oppoſite qualities, deſtroy one another, or loſe their natural properties by keeping: and the whole muſt be of a conſiſtence that will hold ingredients of different gravities in equal mixture. Thus an alkali and an acid, or any thing that will turn acid, ought not to be mixed together, becauſe they will ferment and deſtroy one another. Things moſt liable to grow worſe in this form chiefly affect the aſtringent compoſitions, becauſe the roughneſs and aſperity, in which their aſtringency conſiſts, by long lying in moiſture,

grows

grows ſofter, conſequently leſs efficacious, in any ſuch intentions. The uſual doſe of an electary commonly is about the ſize of a nutmeg.

TROCHES and LOZENGES are compoſed of powders made with glutinous ſubſtances into little cakes, and afterwards exſiccated. This form is chiefly deſigned for fitting medicines to diſſolve ſlowly in the mouth, ſo as to paſs by degrees into the ſtomach. Hence theſe preparations have generally a conſiderable proportion of ſugar, or other materials, grateful to the palate: moſt of the balſamic and pectoral kind are very well fitted for this form; but thoſe of other qualities are not much uſed in modern practice; and the half of what the College orders are never uſed at all. They may be taken at diſcretion.

Of

Of the WEIGHTS and MEASURES made Uſe of in PHARMACY.

Granum, a grain, marked gr.

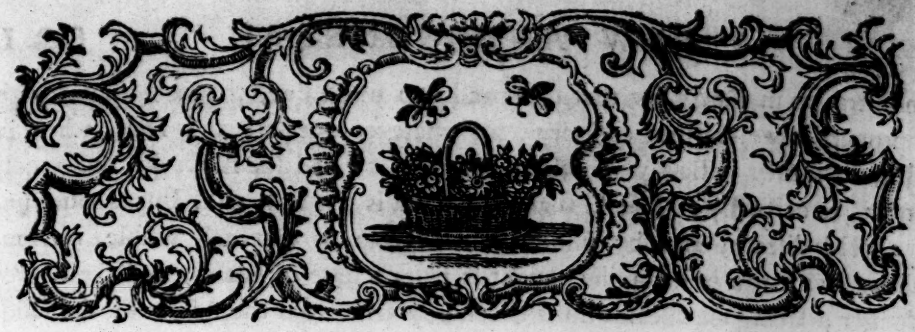
20 gr. are equal to 1ʒ, Scruplus, or 1 Scruple.
3ʒ 1ʒ, Drachma, or 1 Dram.
8ʒ 1℥, Uncia, or 1 Ounce.
12℥ 1 ℔, Libra, or 1 Pound.

MEASURES.

Cochleare, or Spoonful 1, is equal to 33 in Syrups, 34 in diſtilled Waters.
16℥ are 1 ℔, Libra or Pound, or Pint.
8 ℔ 1 Congius, or Gallon.

N. B. When ℔ ſignifies a Pound Weight, P. is added, as ℔ p. When it ſignifies a Pound by Meaſure, or a Pint, then M. is added, as ℔ m.

ana, āā, or ā.	ſignifies	that each of the ingredients preceeding is to be taken in an equal quantity, as the following words or characters direct.
p. æ.		Partes æquales, or, equal parts.
q. v.		Quantum vis, or, as much as you pleaſe.
q. ſ.		Quantum ſufficit, or as much as is ſufficient.
ſ. a.		Secundum artem, or according to art.
f.		Fiat, or let it be done.
m.		Miſce, or mix.
B. A.		Balneum arenæ, or a ſand bath.
B. M.		Balneum mariæ, or a water bath.
S. V.		Spiritus vinoſus, or ſpirit of wine.
S. V. R.		Spiritus vinoſus rectificatus, or rectified ſpirit of wine.
Com. or C.		Compoſitus, or compound.
C. C.		Cornu cervi, or hartſhorn.
C. C. C.		Cornu cervi calcinatum, or calcined hartſhorn.
Gut.		Gutta, or drop.



A NEW and GENERAL

SYSTEM of PHYSIC

In THEORY and PRACTICE.

SECTION I.

Of the FLUIDS *and* SOLIDS.

PHYSIC is the art of preſerving health, and reſtoring it, when loſt; and has for its object *man*; that is, his *life*, *health*, *diſeaſes*, and their *cauſes*, and the *means* by which they are ſubdued. Now 'tis impoſſible for the wit of man to conceive a diſeaſe to exiſt without its ſymptoms, and ſymptoms without a cauſe; but the particular ſymptoms, principally indicating the height and ſeverity of a diſeaſe, are to be diſcovered from the external obvious ſenſible qualities; the principal of which are heat and cold; whereby we have an intuitive knowledge (which is the greateſt certainty our ſtate and condition in this world is capable of) of the nature, cauſe, and ſymptoms of diſeaſes. For example, if I put my hand upon a patient's ſkin, and find it hot and dry; it is as evident to me as any

demonſtration in *Euclid*, or that three and two make five, that it is indued with the properties we call hot and dry; for whatever one ſees and feels, when in health, he knows to be a perception.—Again, if I find the ſkin cold, and moiſt, I know, as certainly as I feel, that the patient is not in health, but labours under a cold diſeaſe; and by finding the degrees of external, viſible, obvious qualities, we know how far the patient is from a ſtate of health, and the degree of danger; ſeeing all diſeaſes muſt neceſſarily ariſe from the ſyſtem of the ſolids and fluids, intended or remitted in their motion, above or below the balance, or ſtandard of nature; and the different degrees of theſe motions, which neceſſarily infer different changes in theſe qualities, in proportion as the motions are intended or remitted. How vain and ridiculous then is it, to ſay, there is no certainty in phyſic, when it is attended with the greateſt certainty, *intuition:* and I doubt not, but all diſeaſes, incident to man, may be accounted for by the mechanical affections of matter and motion: and the more a phyſician ſtudies theſe things, the more ſucceſsful will his practice be. Yet, I do not mean to lay aſide any thing we cannot account for, when long practice and experience have fully demonſtrated its uſe: many things will remain hidden to us, as long as we are in this world; but there is a regular fitneſs in the nature of all things, that compoſe this univerſe; a chain whoſe links are cloſely connected one with another, and ſupport the beautiful harmony and order of the creation, which obſerve the eſtabliſhed laws of matter, whether we look to it with our naked eye, or through a glaſs. Therefore a phyſician's firſt buſineſs ſhould be to make himſelf well acquainted with the animal œconomy, in a ſtate of health, otherwiſe he will find himſelf little able to afford relief in time of pain.

The *human body* conſiſts of two parts, *ſolids* and *fluids*; the ſolids contain the fluids; and are united together either mediately or immediately. And ſeeing theſe canals communicate with each other, the liquids muſt alſo neceſſarily communicate; hence a motion impreſſed upon one part of the liquids may be communicated to all the reſt; and as long as the liquids are regularly moved within their canals, ſo long the perſon is in health; when that motion is, by any cauſe, diſturbed, and irregular, or ſtops in any part, the man is ſick; but when the motion entirely ceaſes, death enſues. Therefore health conſiſts in an equal motion of the fluids, and an equal reſiſtance of the ſolids, in every part. The fluids are ſaid to be equally moved, when they make no greater *impetus* upon one part than another. The reſiſtance of the ſolids is ſaid to be equal, when they preſs the

the liquids on every ſide, ſo as to occaſion no ſenſation of pain. For there is a force on all the ſides of flexible canals, by which the parts endeavour to approach each other, that they may be ſhorter than the line of direction, which is appropriated to the fibre, and that force is found in every point of the fibre; which is reſtrained and with-held by points, to which the fibre is applied, namely, to the diſtending liquids; ſo that the contractile force of the ſolids muſt be balanced, by the antagoniſtic force of the fluids; which balance depends upon the equal influx of the liquid, and its equal impulſe on all ſides ſo as to diſtend the veſſels equally: whatſoever therefore, any where changes the momentum of the influx of the liquid, ſo that it does not equally flow into all the canals, takes off the balance of reſiſtance in the whole body: hence we ſee two cauſes of this balance, viz. the *reſiſtance* of the canals, and the *influx* of the liquid. As ſoon as the balance is taken off in any part of the body, the oſſillatory motions, or thoſe motions which are made, whilſt the canals equally extended, contract themſelves, and undergo a change in that place; and this depends upon the prevalence of the reſiſtance, upon the force of the influx of the liquid, and is deſtroyed when the force of the influx exceeds the force of reſiſtance. Hence we ſee, that the *equilibrium* muſt be preſerved, in every part of the body, for there is no point upon the human body that is not vaſcular, and out of which there does not flow a liquor; for *Sanctorius* has demonſtrated the whole human body to be expirable and inſpirable; therefore not only the ſkin, but all the membranes that form cavities in the body everywhere, and at all times, as long as the perſon is in health, both expire and inſpire a moſt ſubtile fluid. And ſeeing every veſſel is compoſed of a membrane, which being rolled up conſtitutes a cavity, compoſed of the ſtructure of the ſmaller ones cohering with each other, the ſides of which are compoſed of ſmaller ones, and ſo on, till you come to the ſmalleſt and laſt veſſels; which have a membrane made up of the moſt ſimple fibres, conſiſting of the ſolid and laſt parts; the cavities of the laſt veſſels are ſo ſmall as not to admit the entrance of any, except the very fineſt liquid, which is, in truth, next to nothing, though the true nouriſhment, increaſe, and ſtrength of the body, depend thereon: the ſolids are thereby repaired, and it is that ſubtile ſubſtance, which is perpetually oozing into all ulcers, &c. but from the heat of the part, and the natural volatility of the animal fluids, it is quickly evaporated, except the groſſer part, which remains in the ſore in form of *pus*, and is very neceſſary for the cure: it goes to the nouriſhment of the laſt fibres, in the healthy parts of the body, and the fineſt and moſt ſubtile part, which exhales from a ſore, goes

in a healthy ſtate to repair the nervous fluid. Hence ſores are ſo very weakening to the body, through the great expence of blood in furniſhing as much as is neceſſary of this fluid upon evaporation, to have a ſufficient quantity of this ſubſtance: we ſee alſo the reaſon why a member decays when its nervous fluid is obſtructed.

Hence, we ſee, that in order to preſerve health, it is abſolutely neceſſary, that an equal motion in the fluids, and an equal reſiſtance in the ſolids, be preſerved; not only in the larger veſſels, but even in the very ſmalleſt; for when this equal motion or transflux is impeded, whether in the blood, or nervous æther, it matters not, we muſt make uſe of medicines, or mechanical inſtruments, to remove and expel the cauſe by which the balance was taken away, and to reſtore it; otherwiſe the animal œconomy is more or leſs diſordered, according to the degree of impediment, for all the veſſels and fluids have a neceſſary communication. If a fluid, in any part of the body, is retarded, or accelerated, in its motion, it communicates the change to all the other fluids in the body.

ALMOST ALL MEDICINES act as well upon the ſolids as upon the fluids; for the fluids can ſcarce be altered, without the ſolids being in ſome degree affected, and vice verſa: but yet the actions of medicines, ſo far as they regard the fluids, may be conſidered, without conſidering them ſo far as they affect the ſolids; juſt as mathematicians conſider length only, without regard to ſurface or ſolidity, though they do not exiſt ſeparately.

For example, a laxity, weakneſs, or want of tone, and elaſticity in the veſſels, produces ſharp, putrid and ill-conditioned juices; and, on the contrary, viſcid, ſharp, and ill-conditioned juices neceſſarily produce weak and unelaſtic ſolids; ſo that they mutually exaſperate each other; and differ only as cauſe and effect, tho' the fault of the fluids always precede that of the ſolids. Put the caſe that the blood and juices are viſcid, putrid, and ill-conditioned, the fibres conſiſting nearly in their proper tenſion and due tone of elaſticity; the neceſſary effects of ſuch a ſtate of juices, would be a retarding of the circulation, by a greater preſſure upon the ſides of the veſſels, and the forming obſtructions in the ſmall and capillary ones; which, by rendering them impervious, force a greater quantity of juices upon the pervious ones, than they are accuſtomed or able to drive about, and ſo by degrees break and looſen the texture, and relax the tone of all the ſolids; for when

when once the balance between the ſolids and fluids is broken, the machine muſt be ſhattered. Hence, we ſee, it is required as a condition of health, that our fluids be mild and ſmooth, void of acrimony, to deſtroy the veſſels; and alſo that they be of a due conſiſtence, and eaſily moveable, through the ſmalleſt veſſels; not ſo thin as to fly away, but of a due moveable conſiſtence.

On the other hand, ſuppoſe the juices ſound and good, but the ſolids lax and weaker than they ſhould be; then the digeſtion, circulation, perſpiration, and other ſecretions, will be weaker; the food will not be ſufficiently broken and digeſted in the alimentary tubes, the blood not ſufficiently divided, by the force of the circulation, nor the excrements thrown off with due force, and in ſufficient quantity, duly to purify the juices; inſomuch, that they muſt neceſſarily become viſcid, ſharp, and putrid, and their parts increaſe in bulk.

From hence, we ſee, that a weak ſtate of the fibres muſt neceſſarily imply a bad ſtate of the juices; and likewiſe it appears, that there is a due degree of tone, conſiſtence, firmneſs, and elaſticity in the fibres, neceſſary to the perfect performance of the animal functions; namely, to carry on the circulation of the blood and juices; for by the preſſing ſides of the veſſels, the fluids, with the aſſiſtance of their own ſtimulus, are carried toward any point; when their action ceaſes, the motion of the body ſoon ceaſes with it; and when the motion ceaſes, the heat ceaſes, and the liquids concrete, ſtagnate, and putrify: therefore a due fluidity of the blood does not depend upon the blood itſelf, but upon motion, impreſſed upon it by the action of the ſolids, which breaks, ſubtilizes, and fits it for paſſing through the fineſt tubes, and performing the ſecretions and excretions neceſſary to preſerve the body in health; and an exceſs over or below that degree of elaſticity, produces diſeaſes of one kind or other.

We will now proceed to conſider, more at large, the univerſal ſources and cauſes of all diſeaſes, *viz.* the *fluids* and the *ſolids*. To begin then with the *fluids*.

CHAP.

Chap. I.

Of the Fluids.

Our Fluids poſſeſs the general properties of other liquids, and likewiſe properties peculiar to themſelves. Every particle of our fluids has its own proper and determinate bulk, figure, and ſolidity, its own determinate force or momentum; and in any or all of theſe they may offend.

But that we may the better underſtand what follows, I will here preſume two or three words concerning the blood in general.

The blood, as it flows in the larger veſſels, by the ordinary courſe of circulation, ſeems to be a pretty uniform maſs, much like *cow milk*; but when drawn out of theſe veſſels, and left without heat and motion to ſettle in the air, it ſeparates into two parts, one of a more glutinous and ſolid texture, called the *globular*; and the other of a more thin and fluid nature, called the *ſerous* part; and both theſe are found in different proportions, and of different natures, conſiſtence and colours, according to the diſeaſes of the perſons in whom they are found. I ſhall only mention here three of thoſe different ſtates, wherein the diſtinguiſhing marks are moſt evident, though there are many intermediate degrees between thoſe which it is needleſs to enumerate; but theſe three will include them all, and are the moſt general, remarkable, and uſeful.

1. The firſt is when the globular part, or craſſamentum, is of a moderate coheſion and firmneſs of parts, in a pretty equal proportion to its ſerum, and of a red ſcarlet colour, when expoſed a due time to the air; and when the ſerum is about the conſiſtence of common water, pretty clear, and almoſt inſipid, or at leaſt, not biting and ſaltiſh; this I take to be pretty near the ſtate of the ſoundeſt and beſt blood.

2. The ſecond ſtate I would mention, is when the globular and grumous part is in a far greater proportion than the ſerum, more thick and viſcid, having a glew or ſize on the top, of a bluiſh at firſt, then of a whitiſh and tallow colour, increaſing ſometimes to half, or more, the thickneſs of the whole; the ſerum being

being in a ſmaller quantity, and of a yellowiſh or tawny caſt, ſharp, acrid, and ſaltiſh to the taſte: this ſeems to be of the middling nature between the beſt and worſt, and is common in pleuriſies, rheumatiſms, *&c.*

3. The laſt ſtate of the blood I ſhall mention, is where the fibrous or globular parts are ſcarce any at all, and the ſerum about eleven or twelve times as much, ſharp, ſaltiſh, and urinous to the higheſt degree in its taſte, and the globular part ſwims like an iſland in the ocean: this I take to be the worſt blood; where the ſharpneſs and acrimony have arrived to the higheſt degree, even to that of the worſt ſtate, like that of thoſe in a confirmed conſumption, dropſy, or other mortal diſeaſe; but notwithſtanding the *appearances* of theſe three ſtates, the ſharpneſs, heat, and acrimony of the blood may ſometimes be almoſt equal to the appearance of the worſt ſtate; and then we have no better criterion, whereby to judge of the ſtate of the blood, than the *taſte*.

The blood globules, conſiſting probably of an equal degree of attraction and denſity, ſeem to be formed of the more ſolid parts of the food, by the action of the digeſtive powers in the alimentary tubes, by the force of the circulation, and the grinding of the blood veſſels; and to receive their globular figure from the equal preſſure, on all the ſides of the watery fluid, wherein they ſwim, and the equal degree of attraction in their parts. When the quantity and quality of food is duly proportioned, the red globules and ſerum are pretty near of an equal quantity, and conſtitute what we call good blood, the firſt ſtate we mentioned: but if the ſolid food is in too great a proportion, in quantity or quality, then a greater proportion of red globules will neceſſarily be generated; and if the ſolids be ſtrong ſo as to comminute them ſufficiently, and drive them about with due force, they will produce an inflammatory ſtate of the blood; from whence pleuriſies, acute diſeaſes, fevers, inflammations, and all inflammatory diſeaſes ariſe; and if the ſame proportion of food is thrown in when the ſolids are lax, conſequently the digeſtive organs weak, and the circulation languid, the blood thence ariſing will be viſcid, ſizey, or the ſecond ſtate we deſcribed, from whence obſtructions and diſeaſes of the cold kind, chronical, and nervous, will ariſe.

On the other hand, when the drink is in too great a proportion to the ſolid food, when great quantity of ſtrong ſpirituous liquors are drunk, and a ſmall quan-

quantity of food taken, and that too full of ſalts and ſpirits, the fibrous part of the blood will be produced in ſmaller proportion to the ſerous, or will be conſumed, or burnt up by it, and ſo the laſt ſtate of the blood I have mentioned will be produced.

Now we will conſider the liquids more particularly, and firſt with regard to their bulk.

With regard to their bulk, they may be either too *thick* or too *thin*. When the bulk of the particles is too much increaſed, two effects ariſe; *firſt*, an obſtruction of the circulation, if the veſſels are lax; *ſecondly*, an increaſed momentum, velocity, heat, and friction, if the fibres are rigid; the conſequence of which is the interruption of the ſecretion of thoſe liquids, which ought to be ſecreted. Therefore, as the veſſels ariſe two ways from the arteries, either directly as the veins, or obliquely or laterally, as the glands and ſecretory veſſels, are leſs than the veins and arteries; if the blood comes thicker than uſual, what ought to be ſeparated can by no means enter the orifices of the glands, but goes directly into the veins; and ſo the ſecretion is loſt, and the ſecretory veſſels will either cloſe, through a defect of the diſtending liquid, whence the body will be filled with vicious morbid juices; or they will tumify, relax, and burſt, from too great a diſtenſion of their ſides; whence tumors, polipuſſes, ſwellings, and an interruption of the animal æther or nervous fluid: but if the thickneſs of the particles is ſo great that they cannot enter into the veins, then the circulation is hindred; whence proceed lentors and coheſions, ſluggiſhneſs and inaptitude to motion; the effect of which is a leſs action of the fluids upon the ſolids, and of the ſolids upon the fluids.

If this lentor happens in the greater veſſels, in the auricles of the heart or ventricles of the brain, a polypus is ſoon formed, which is a ſolid maſs reſembling leather, and the more ſolid the longer it has continued. There is often found a polypus ſubſtance in the heads of thoſe who have been hanged; for in them the blood having its reflux through the jugular veins obſtructed, regurgitates into the lateral canals.

If there happens a lentor in the ſmaller arterial veſſels, there ariſes an inflammation, accompanied by a pulſation and pain; the pulſation ariſes from the thick-

thickening blood, ſtopping in the little arteries, and being protruded by the blood that preſſes behind, and from the endeavour of the ſolids to contract themſelves. The pain ariſes from the ſides of the veſſels being very much diſtended and ſtimulated; in this caſe the finer part of the blood, ſtopping in the ſmall arteries, ſometimes exhales through the ſmalleſt lateral veſſels, if they are not obſtructed; otherwiſe this more liquid part of the blood, from its ſtagnation, putrifies; that is, the ſaline particles, having time to diſengage themſelves of their balſamic part, attract each other, and criſtalize, and the other part becomes acrid and rancid; whence puſtles, gangreens, and various other diſeaſes, and at laſt death itſelf. But if the lentor is in the broad or firſt orifice of the lymphatics, a kind of gypſeous or hard matter is there collected for the reaſon juſt now mentioned; namely, becauſe the more liquid part flows through the lateral branches, which here are in plenty; hence the polypus becomes white; but if it is protruded to the extremity of the lymphatics, a dropſy, and white veſicular tumour, or œdema ariſe, from the veſſels being diſtended by their own pellucid liquors, if they burſt, then comes a lucophlegmatia or anaſarea; and as the humours frequently ſtop and ſtagnate, ſo they contract an acrimony; thence ariſe impoſthumes and gangreens. If all the liquids is ſqueezed out, and the thick matter unites, then a ſchirrus is produced; if the matter is moved, a cancer comes on; if a great quantity of veſſes is deſtroyed, by the vital power and an obſtinate obſtruction, then a ſphacelus or mortification of the part enſues. But if this lentor remains in the extremities of the veſſels, there is a muddy and turbid maſs ſecreted, which, by putrifying, diſſolves the veſſels; then ariſe thoſe diſeaſes that are peculiar to the nerves, and perhaps alſo apoplexies, and deprivation of ſenſes; but that ſeldom happens, becauſe the nervous fluid can never be concreted by the power of heat or cold, on account of its almoſt immutable ſolidity; but the external nerves are affected when they are preſſed by the arterial veſſels being too much diſtended, whence ariſes an inſenſibility, and often an immobility. There are various cauſes of a lentor in our fluids.

The firſt is the exhaling of the more fluid part, hence the blood remains fluid in the veins ſo long as the lymphatic veſſels are diſcharged into them; now the remedy for this diſorder is the reſtitution of the liquid flown off.

The ſecond cauſe is any degree of heat, exceeding the natural heat of our body; this heat thickens the blood by evaporating the finer and ſpirituous parts;

and indeed ſuch a lentor can by no art be removed, ſo long as the heat remains; not by the ſpirit of ſalt, nor by oils, nor by any thing elſe of that kind; for the heat carries off the finer parts, even though the veſſels remain ſhut, as appears in the digeſtion of blood. Hence we ſee, that the effect of all too hot cauſes in the blood, without the body, is inſpiſſation; hence in all inflammatory caſes too great heat is carefully to be avoided. The ſame effect of heat, *viz.* inſpiſſation, obtains in all our fluids, except the excretory, as urine, ſweat, *&c.* and ſome that are ſecretory, as the pancreatic juice, bile, ſpittle, mucus, which indeed, in ſome meaſure, coaleſce; but are eaſily diſſolved again.

The third cauſe is immenſe cold, by which water, and alſo our fluids, may be congealed. For if the blood of a healthy man be expoſed to the coldeſt air, the thick part will be ſeparated into an inſula, and the aqueous and ſerous will be turned to ice, as is ſeen in men who have periſhed by cold; but yet, it is not eaſy to congeal all the ſecretions of the blood, for the aqueous humour of the eye is never congealed, and the bile and ſerum not without difficulty; but the ſpittle may be eaſily congealed, and the urine preſerves a ſpirituoſo-ſaline part fluid in the middle, whilſt the aqueous part is congealed. Surprizing diſeaſes depend on this cold: thus we obſerve, that frozen fleſh grows putrid, when thawed by heat; for by this means, the natural connection is diſſolved, and the liquid becomes a volatile alkali by this obſtruction.

The fourth cauſe is a reſt brought upon the humours, which produces a coagulum in all of them, eſpecially the arterial; for if a man, in the moſt perfect health, is ſeized with a ſudden fear, a paleneſs and coldneſs will immediately ariſe; and if the paſſion is vehement, and endures a long time, then a ſtupor, a defect of liquid in the brain, and a privation of motion; whence come obſtructions or coagulations of the humours in ſome of the bowels; which, if they happen in the heart, cauſe a palpitation, and this is wont to happen in thoſe who are ſubject to frequent faintings; for after they have lain for ſome time, (perhaps a quarter of an hour) deprived of ſenſe and motion, when they begin to recover, they generally perceive anxieties about the region of the heart, and, for the moſt part, at the pulmonary artery; for the heart, at that time, having its motion accelerated, and as it were reduplicated, endeavours to throw out a great quantity of blood that ſtagnates in its ventricles, and neighbouring veſſels; and hence ariſes the palpitation, becauſe of the plenty of blood that comes, and the difficulty

culty of throwing it all out; but if it cannot get rid of that maſs of blood, then a polypus ariſes, and, at length, death.

The fifth cauſe is the admiſſion of many particles that coagulate the blood; thus all acid-diſtilled minerals, by a violent fire, coagulate the blood on a ſudden. Spirit of ſalt more ſlowly, ſpirit of vitriol, nitre, alum, moſt quickly and ſtrongly; which, if they are injected into the veins, immediately coagulate the blood; which, on account of the laxity and amplitude of the veins, being carried into the heart and pulmonary arteries, ſoon ſuffocates the animal; but it muſt be obſerved, that all acids do not thicken the blood; for nitre, and marine ſalt and vinegar dilute it; and alſo other acid ſpirits of vegetables.

The ſixth and laſt cauſe is too great a motion, and alſo an obſtruction in the ſmalleſt veſſels; for, in every obſtruction of an artery, the veſſels are diſtended; and are at length burſt, if the obſtruction continues. Hence follows an extravaſation of the more liquid part of the blood. This aptitude to form a coagulum is a property inherent in the blood in a healthy ſtate; for experience ſhews the more healthy a man is, the more quickly and eaſily does his extravaſated blood acquire a lentor; when, on the contrary, moſt diſeaſed perſons have their blood very fluid, eſpecially thoſe who are leucophlegmatic; every cauſe which acts moſt vehemently upon the blood promotes that concretion; for thoſe who uſe violent exerciſe, and have ſtrong muſcles, and move them much, have thick blood: alſo too great excretions and evacuations thicken the blood, in the greater veſſels, whence there happens a ſubſidence in the ſmaller ones, hence an atrophy, becauſe the fluids do not enter the lateral lymphatics; but ſeeing this happens, in all immoderate evacuations, it is no wonder that thoſe ill conſequences ſhould follow.

Whatever therefore, either by external or internal application, renders the fluids faulty in this reſpect, that is, condenſes them, increaſes the heat of the body, and becomes an internal heater: for in our bodies the veſſels and projectile motion remaining the ſame, if the thickneſs of the liquid is increaſed, the heat alſo will be increaſed; hence cold heats the more, as it acts the more, if it does not ſuppreſs all motion, for it condenſes our fluids; ſo we ſee after great external cold, there always follows a greater internal heat.

Again, in our body, *cæteris paribus*, if the denſity of the fluids is diminiſhed, the heat alſo will be diminiſhed: now the denſity of a fluid is diminiſhed by attenuating and diluting, therefore *attenuants* and *diluters* are coolers. Hence, we ſee, why in inflammatory diſeaſes, when the blood is thickeſt, attenuants and diluters are of ſo much ſervice.

ATTENUANTS are thoſe medicines which cure the increaſed bulk of the particles, by dividing and reducing each of the moleculæ of the blood into ſmaller ones; they are alſo called reſolvents, as they reſolve the moleculæ of the fluids, which perpetually coaleſce in a natural ſtate, and prevent their endeavour to cohere; which endeavour may ariſe from the attractive power of the particles, which they poſſeſs in common with all other parts of matter, or from a cauſe preſſing externally, which is cured by removing the external preſſure; the poſterior cauſe is removed by the ſeceſſion of each particle from the other, called attenuation, or diminiſhing the preſſing weight; but in our body, weight is nothing elſe but the amaſſing a greater quantity of liquid, in ſome narrow place, than the perfect performance of the animal functions permit of; whence the parts are preſſed upon each other.

The beſt attenuants therefore, in this caſe, are evacuations, ſuch as depletion of the ſanguiferous veſſels, ſalivation, duireſis, purging, *&c.* for by this means, part of the fluids being taken away, the remaining part has a greater liberty of motion, and an admiſſion is thereby procured for other attenuants; but we muſt obſerve, that though a due depletion of the blood veſſels conduces to the attenuation of the blood, yet too much hinders it; becauſe then the veſſels cannot contract themſelves, ſo far as to propel the contained blood, whence it ſtagnates and forms into coagulums.

Again, all ſubſtances, that inſinuate themſelves into the pores of the body to be attenuated; and, by the interpoſition of their particles, disjoin, divide, and ſeparate its parts from each other, are attenuants, as the woods of guaiacum, ſaſſafras, all volatile and mild alkaline ſalts, or ſalt of hartſhorn, all fixed alkaline ſalts of incinerated plants, not very acrid, leſt they ſhould corrode, all volatile ammoniac ſalts, compounded of a volatile ſalt, and acid, in ſuch a manner, that the alkali predominates; all acrid oily volatile ſalts, compoſed of volatile ſalt and oil; all foſſile ſalts, as ſea ſalt, nitre, borax, and niterous plants, greatly attenuate; but metalline ſalts thicken the blood; all natural and artificial ſoaps, antimo-

and extracts made of them; but the moſt efficacious of all are mercurials, and antimonials, which divide the moleculæ of the blood, in the ſmall arteries, near the ſecretory veſſels.

Laſtly, our fluids may be comminuted by attrition, which is done by increaſing the force of the ſolids, whereby the inteſtine motion of the fluids is increaſed, conſequently their attrition againſt each other, and the ſides of the veſſels, is likewiſe increaſed.

Diluters differ from attenuants, in this, that they do not change the parts of our fluids; but, by mixing with them, render them more fluid, or make the parts ſeparable from each other, with leſs force. But there are conditions requiſite to conſtitute any medicine a diluter, in the ſtrict ſenſe of the word; it muſt be more fluid than the liquid to be diluted; and likewiſe have a power to retain its fluidity, after commixture; but the medicines already mentioned, act by dividing and ſtimulating, therefore there is no true diluter but water, and other things, as far only as they have water in their compoſition; though cold phlegmatic people ought not to drink much water, as it will greatly injure the tone of the veſſels; heat is neceſſary to make water a uſeful diluter; and water, aſſiſted by heat, dilutes the more; and ſalt very much promotes the operation of warm water by ſtimulating, as ſea ſalt, ſal polichriſt, ſal ammoniacum, or borax.

The increaſe of the motion of reſpiration greatly helps dilution, as in a pleuriſy, peripneumony, *&c.* then the patient ſhould reſpire as much as poſſible; for, beſides the effect peculiar to the motion of the lungs, namely, the attenuation of the humours, the ſtomach alſo, and inteſtines, are compreſſed by the ſame means, and thereby there is a quicker expulſion of the diluting water, and a derivation of it into the lactical veſſels; the chyliferous duct is more preſſed by turns, and the flux of the water through it accelerated.

Thus alſo, by a voluntary motion of the muſcles, the paſſage of the fluid is increaſed, which is of the greateſt uſe in ſome chronical diſeaſes where the fluids are incraſſated; wherefore thoſe, that are affected with ſuch diſorders, ſhould walk, run, leap, ride on horſe-back, or in coach, and uſe all violent motions, frequently drinking water in the mean time.

The

The FLUIDS of our body may offend with regard to their *thinneſs*. The particles of blood are ſaid to be too thin, or too much divided, when they are reduced to ſuch a ſmallneſs as to be quite unable to ſupport life and health; the cauſe of this fault may be either external or internal, and the effects of it are an acceleration of the circulation, and a withering of the ſecretory veſſels, *&c.* for when the blood is much divided, as to the bulk of its particles, it paſſes more eaſily out of the arteries into the veins than into the lateral veſſels; and therefore throws itſelf into them in greater plenty, conſequently the veins are more dilated; and the more they are dilated, the more vehemently they contract themſelves: whence follow an acceleration of the circulation, a greater attrition and heat of the parts, a ſubtiliſing of the blood, and an irruption of it out of its veſſels: and, in this ſtate of the blood, none, or at leaſt very few particles, enter the lateral veſſels; which are no longer extended, but are dried, coaleſce, and at laſt become fibrous ſtamina: whence follow phthiſis, leanneſs, and various chronical diſeaſes.

That the thinneſs of the blood accelerates its circulation and attrition, and heats the body, is demonſtrated thus. By mechanics, it appears, that, *cæteris paribus*, the force of any ſolid bulk is as bulk to bulk; now as the force ſo is the reſiſtance of one body to another, as bulk to bulk, *cæteris paribus*; therefore the proportion of a ſolid to the contained fluid increaſes as the veſſels grow narrower; but the power of a contained ſolid over a contracted fluid, is no more than an endeavour to contract itſelf; and, by that endeavour, motion is communicated to the fluid; therefore the power of a ſolid to a fluid, is the faculty of communicating motion; and the thinner a fluid is, the eaſier it is put in motion, and the leſs it extends the ſides of the veſſels; and the more the diameter of the ſolids is contracted, the greater their force; therefore the acceleration of the circulation ariſes from the blood's own aptitude to motion, its irritating quality, and the contraction of the diameter of the ſolids.

Again, heat is raiſed in any body by attrition, and attrition is performed by the contact motion and preſſure of bodies to each other; hence therefore, the greater the force is, by which theſe bodies are applied to each other, the more their heat is, and the more violent the motion of the bodies is, that make the attrition, being repeated at ſhort intervals, and long continued, the greater will be the heat, *cæteris paribus*, for heat in our bodies ariſes from attri-

attrition; but attrition is made in our bodies by the contraction of the ſolids, and the impinging of the fluids againſt each other, and the ſides of the veſſels: therefore whatever increaſes the attrition of the ſolids againſt each other, or of the fluids againſt each other, is a heater: though the ſolid parts may ſuffer attrition againſt each other in all the joints; yet in them, beſides the bound and binding parts, there are alſo lubricating fluids lying between the parts; therefore as long as that liquid is at hand, ſo long the heat cannot be increaſed by attrition, ſo as to become morbid; but as ſoon as that fluid fails, then the heat increaſes too much by attrition; as in the gout, rheumatiſm, and ſcurvy: alſo whatever encreaſe the mutual attrition, and action of the ſolids and fluids on each other, is a healer.

Hence, we ſee, the greater the heat is, the more ſubtilized the blood is, and the fitter to fly off: but the arteries take the blood from the heart, and empty themſelves into the veins in direct lines, and into the ſecretory veſſels, obliquely and laterally; then if you increaſe the circulation of the blood, as it finds more difficulty in entering the ſecretory veſſels, it paſſes directly into the veins; hence the ſecretion is loſt, and the ſecretory veſſels colapſe; and the veins, through a redundancy of blood, are extended.

But in our bodies the fluids and projectile motion remaining the ſame; if the veſſels are ſtraitened, the heat will be increaſed; for the more points the bodies that make attrition touch one another in; or (which is the ſame) the greater their ſurfaces are, with which they touch one another, *cæteris paribus*, the greater will be the heat excited by attrition: thence heaters are all that compreſs the veſſels, as ſtrait cloaths, thick bedding, heavy air, cold water, and cold air, which ought to be avoided by all that are ſubject to hæmorrhages; thoſe things alſo that bind the veſſels externally, provided they do not hinder the motion of the blood; and likewiſe thoſe things which contract the veſſels.

If then the heat is increaſed, the fluids and projectile motion remaining the ſame, the veſſels muſt neceſſarily become more ſtrait. Hence the fluids may be very much diminiſhed; and yet the heat remain, in ſome diſeaſes, as in a conſumption.

For all hectic perſons are dried by the heat, whence the fibres become more rigid; and, becauſe of the *maraſmus*, many of their veſſels fall together: and therefore, in the reſt of the veſſels, the fluids are greatly ſtraitened. For if there

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is ſo great a deficiency of fluids, as to take away the continuity of column in the veſſels, their motion muſt neceſſarily be ſtopped, for the antecedent part ought always to be impelled by the ſubſequent: therefore, on this occaſion, the deficiency of liquid ought to be reſtored.

Accordingly we find, that men of hot bilious conſtitutions, as well as thoſe who are emaciated with too much ſweating, are greatly relieved by whey, buttermilk, *&c.* that is, by repairing the deficiency of the loſt fluid, which diminiſhes as the heat increaſes.

If the velocity of a fluid and its bulk are at the ſame time increaſed, ceteris paribus, the heat will be, in a proportion, compounded of both; and, in general, if either of theſe two is increaſed, the third remaining the ſame, then the heat will be, in a proportion, compounded of the two that are increaſed. But if the velocity and bulk of a fluid, and, at the ſame time, the ſtraitneſs of the veſſels are increaſed, a very great heat will ariſe.

The fitteſt remedies, in the caſe of the thinneſs, velocity and attrition of the blood, are coolers. In our body, *cæteris paribus*, if the veſſels are leſs elaſtic, a coolneſs will ariſe. Therefore, in this caſe, all relaxers are coolers, as warm baths. By relaxation is meant, ſuch a change in the ſolids, by the interpoſition of lubricating particles between the particles of the ſolids, as to make them longer than they were before, without any rupture; the effects of which are, a dilatation of the ſmalleſt veſſels, and a more free circulation of the humours thence proceeding.

Wherefore *relaxing* remedies are thoſe, which, by entering the canals, remove their ſides from each other, and render them ſoft by lubricating them, ſuch as warm water, internally or externally, in form of baths, fomentations, *&c.* All vegetable oils, as oil of ſweet almonds, linſeed, *&c.* glutinous and farinacious emulſions, decoctions of barley, *&c.* oily lacteſcent herbs that are not acrid; alſo thoſe called emollient, and all ſaponacious bodies.

In our bodies, *cæteris paribus*, if the veſſels are rendered more capacious, the heat will be diminiſhed: therefore all thoſe medicines, which increaſe the capacity of the veſſels, thereby increaſe their diameters, and become coolers.

Hence

Hence it is manifeſt, why thoſe that wear looſe garments, or lie in bed with few cloaths, are cold; alſo why men who have lax veſſels, and why fat men and women are, for the moſt part, colder than others.

All moiſteners, relaxers, aperients, and deobſtruents, open obſtructed paſſages by relaxing the veſſels, reſolving and diluting the fluids, and driving both into motion; they promote the circulation, and thereby become coolers.

Again, the thinneſs of the blood is corrected by coagulating medicines, which change the parts, conſtituting a fluid, into a ſtraight conceſcent maſs; ſo that many particles are moved under one ſurface. This may be done by expelling the moſt liquid particles, which are amongſt the reſt, and thereby binding the thicker more ſtrongly together. For bodies, beſides their ſolid parts, have many pores, which may be phyſically called *vacuums*, and do not reſiſt the entrance of another body. Therefore all of this kind act, by leſſening theſe pores; which is done by compreſſing the ſolids, ſo as to make them approach near each other; which cannot be done without expreſſing the more liquid and and finer parts.

The other kind of coagulating medicines operate, by uniting the parts together, and by the interpoſition of ſomething between the parts of the fluid, to keep them together, ſo as to make them run into greater bulk; but thoſe, that operate in this manner, can hardly be made uſe of without danger.

The medicines, which act after the firſt manner, are of two ſorts; thoſe that are properly called expellents and abſorbents, which receive the thin intermediate fluid within their pores, whence the remainder becomes thicker. Coagulaters of the firſt kind are galls, unripe juices, walnuts, all ardent fermented ſpirits, and vitriolic ſalts, vitriols of ſteel, lead, copper, ſilver, ſpirit of nitre, and all ſpirituous liquors. Theſe exerciſe a double power; they corroborate all the ſolids, and ſtimulate them into contraction; and therefore more reſiſt a diſtenſion, and conſequently the action of the heart. Hence their mutual motion is increaſed, and their action on our fluids becomes greater; which cauſes an attenuation of the fluids, a diſſipation of their moſt fluid part, and at laſt a coagulum; and, being mixed in a ſufficient quantity with our fluids, they immediately coagulate them.

All vehement heat, whether it ariſes from fire, the ſun, or friction, firſt moves the fluids, and thereby increaſes their attrition againſt the ſides of the veſſels; whence follows an expulſion of the moſt fluid part; and the thicker and leſs moveable, being left, unites. Therefore heat thickens the fluids of the body; and if it ſometimes diſſolves them, it does it by acting upon the ſolids, and ſtimulating them. But heat never attenuates the fluids immediately by itſelf; and when the ſtimulation is ended, there begins an inſpiſſation.

Alſo all muſcular motion firſt increaſes the ſanctorian perſpiration, and then expels the lymph, under form of ſweat; and what cannot be preſſed out, is inſpiſſated or thickened. The ſame motion ſometimes attenuates, provided it is not too vehement; which it does, by increaſing the contractile power of the ſolids, and promoting their action on the fluids. But if this muſcular motion is too much increaſed; then the blood, in a manner, boils, and there ariſes a burning fever; unleſs prevented by drinking plentifully of water.

A too vehement circulatory motion of the fluids increaſes the application of the particles, to the ſurface of the veſſels; for the veloſity of one fluid is to that of another, as this application is to the application of the other. Therefore, if the velocity of the projectile motion is double, *cæteris paribus*, the derivation alſo, towards the lateral veſſels, will be double. And as theſe are leſs than ſtraight ones, they will admit only of the moſt fluid part, and that in inſufficient plenty; whence the particles, which are carried ſtraight forwards, will be thickened. For the vital power, preſſing behind the particles which were at liberty, will make them coaleſce, and run into greater moliculæ: and if this motion and preſſure are long continued, the moſt fluid parts will be diſſipated, and the thicker will be incraſſated, and become, in a manner, ſolid.

But this motion attenuates, if great quantity of liquor is drunk in the time. Every excretory motion too much increaſed, as too great ſweating, purging, diabetes, *&c.* carries off the moſt fluid part of the blood.

Any cauſe, compreſſing the veſſels externally, expels the moſt fluid parts; as we ſee in thoſe that catch cold, and thoſe that go into mines, where the preſſure of the air is greater: firſt they grow cold, becauſe the transflux, through the moſt ſmall extreme veſſels, is hindered a little; but ſoon after they

they ſweat; not from the heat of the place, but becauſe the force of the heart remains, while the capacity of the veſſels is diminiſhed: wherefore the ſame quantity of fluid is carried through the canals, now made narrower; whence there is a greater motion and attrition, and, conſequently, a ſweating.

Alſo all kind of medicines, that can either excite or increaſe the preceding; ſuch as ſtimulants, ſudorifics, emetics, *&c.* the abuſe of which thicken the fluids: therefore in diſeaſes depending upon the thickneſs of the blood, it is of ill conſequence to give ſudorifics, when diluters are indicated.

The ſecond claſs of coagulators, which act by abſorbing or ſucking up the thin intermediate fluid within their pores, whence the reſt becomes thicker, are all the teſtacious abſorbing earths.

All remedies which thicken the blood to a due degree, ſtrengthen the body, and diſpoſe to long life; for if a due thickneſs is wanting, the fluids are derived in great plenty into the lateral veſſels, and ſeparated from the body. Whence the ſtrength periſheth; which conſiſts in the magnitude of the veins and arteries, and a due thickneſs and firmneſs of blood flowing through them. When the blood is too thin, as in conſumptive perſons, it may again be thickened by ſtrong muſcular motion, or any of the remedies above-mentioned.

The fault may be in our humours, with regard to their figure, which may be too *acrid*, or too *viſcid*, and *obtuſe*. Though indeed their obtuſe figure produces no ill effects; and therefore ought not to be eſteemed a fault. But if they are too viſcid, they may offend, by adhering too cloſely to the ſides of the veſſels, either in one point, or all round.

If a *viſcid* particle ſo tenaciouſly adheres to the ſides of a veſſel, that the fluid, preſſing behind, is not able to remove it; then the part, to which the viſcid ſticks, will ſuſtain a greater preſſure from the contained fluid, and conſequently will be diſtended thereby; but the more it is diſtended, the more the elaſtic force of the ſolids will endeavour to contract and reſtore themſelves. Whence the harmony and ballance of the oſcillatory motion is taken away in that veſſel; hence an obtuſe pain, which is perceived in almoſt all diſeaſes, ariſing from a viſcid; for it ariſes from preſſure. But if the viſcid adhere to the ſides,

ſo as to touch all round, then there enſues a total obſtruction of the veſſel itſelf; and, at the ſame time, a diſtenſion of its ſides. For the obſtructing particle will be propelled, by the fluid urging behind; till there is a balance between the force of the fluids, and the power of reſiſtance in the body, or ſides of the veſſel. This being once affected, the particle will remain unmoved, quite ſtopping up the cavity of the veſſel, and, at the ſame time, diſtending its ſides. And the fluid, that ſhould paſs through the obſtructed veſſel, having no opening to flow through, verges towards the lateral canal; which it cannot enter, without dilating its ſides, ſeeing it was already filled with its own fluid. But, as it dilates the canal with an additional fluid, the contractile power of the ſides is thereby augmented; and, conſequently, the oſcillatory motion becomes more vehement: thence the courſe of the fluids is ſwifter.

Hence, we ſee, that a fever immediately ſucceeds a cold; and the greater the cold is, the greater the ſucceeding heat and fever will be. Cold then is excited in our bodies, by removing or diminiſhing the attrition of the internal parts, both of the ſolids and fluids. Therefore there cannot be a greater cold given to the body, abſtracting from external cauſes, than what is produced by death.

In our bodies therefore, the fluids remaining the ſame, if the projectile motion is diminiſhed, the heat alſo will be diminiſhed; or the cold increaſed. Whence coolers are, whatever diminiſh the projectile motion. But the projectile motion depends on the contractile force of the ſolids, and on the ſtimulus applied to them; for the greater the motion is, the greater is the force of the ſolids, and *vice verſa*. Whatſoever therefore, deſtroys the power of ſtimulators, is to be accounted a cooler.

As cold is produced by diminiſhing the attrition, ſo is heat by the contrary; that is, by increaſing the attrition, or the mutual action of the ſolids and fluids on each other; which is obtained by ſtimulating the ſolids, and moving the fluids, by *acrids*.

Acrids are bodies, conſiſting of ſeveral ſtiles, ending in a point, or forming an edge like a knife, or ſword; whence they are able to prick and cut like ſo many little edges. If an acrid is fixed into the ſide of any veſſel, then the whole force of the circulating fluid, which uſed to act upon the various points

points of the ſide, is now determined to that point in which the acrid is fixed; which, as the ſides of the veſſels are flexible, muſt give way; ſeeing it ſuſtains a greater preſſure than the other parts of the ſame ſide. And, as the canal is elaſtic, the more it is preſſed, with the greater force it reſtores itſelf. Whence the balance of oſcillatory motion is deſtroyed; and the veſſel drawn into convulſive motions. And the ſtiffer and more inflexible the acrid part is, the deeper it is infixed; and the worſe and more vehement will the effect be.

Thence it happens, that the particles of metals, reduced to an acute figure, as corroſive ſublimate, have much more violent effects upon our bodies, than any particles taken from the vegetable, or animal kingdom, ſeeing they are much more rigid; and, having more gravity, are more deeply infixed in the ſides of the veſſels. For the power of an acrid is to be eſtimated, according to its abſolute and ſpecific momentum; that is, according to its weight and velocity. For example, ſuppoſe two acrid bodies, one of one degree of weight, and the other of two; then the effect of the ſecond will be twice as great, as that of the firſt. Again, if we ſuppoſe theſe two acrids of equal weight, but the one has twice as great a velocity as the other; then one will have twice the effect of the other upon the body.

Hence the ſmaller a veſſel is, in which an acrid moves, the greater its weight and velocity will be; and conſequently its effects will be proportionably greater. And as the veſſels of the body are both cilindrical and conical, the arteries being cilindrical, and the veins conical; therefore acrids act mildeſt in the veins, which grow broader from a narrow beginning.

If an acrid fixed in a veſſel, ſuppoſe in the kidneys, ſhould cauſe them to be wider or narrower than uſual; then the particles of the fluids, that are greater or leſs than uſual, would paſs through them. Hence the variation of the ſecreted urine; which ſometimes appears limped, and at other times thick. But if the acrid particle be ſo far preſſed, as to perforate the ſides of the veſſel, then a wound is made, equal in bigneſs to the acrid particle; which may be ſo far opened, by the contraction of the fibres, as to let out the fluid contained in the veſſel. Whence droppings, ſalivations, and many other unnatural evacuations in our body, where the wound is made in veſſels ſufficiently large. But if the perforation is made, in any very minute veſſel, ſuch as ſome of the veſſels of the lungs

lungs are, then there flows a moſt thin liquor, not in the leaſt degree red; becauſe the rupture or aperture is ſeldom made ſo large, as to be able to tranſmit the red globules of blood; whence a tumour, or inflammation, may ariſe in the place, and neighbouring parts. For the fluid, being preſſed by the heart, and forced into the ſides of the veſſel, will force through it all its particles, which anſwer to the aperture made by the acrid; and theſe particles, preſſing the neighbouring ones, will excite a tumour and inflammation in them. Thus, we obſerve, in ſeveral diſeaſes, that a pain firſt ariſes from the puncture of the acrid, which is immediately followed by a tumour; and the fluids, which remain there and ſtagnate, follow their own nature; that is, putrify by ſtagnation, become acrid, and afford a volatile alkali; and that acrimony of the fluids renders them fit to diſſolve our veſſels.

Now this law obtains in the urine, blood, and ſerum of the blood, but not in the lymph. For we ſee, that in dropſical perſons, though their bellies are filled with a fluid, diſtilled from the lymphatic veſſels, no gangrene ariſes in the contents of the abdomen: whence the particles of the blood may offend in being too acrid.

Acrids, in our bodies, may be of two ſorts; thoſe which ariſe there; and thoſe which are brought there from without.

Thoſe bodies, which are mild, become acrid two ways: *firſt*, by changing their figure; *ſecondly*, by removing the ſheaths, by which the acrids are covered. In a healthy ſtate, there are hardly any acrids in us: for there are no innate acrids, except the bile and urine, which are preſently drawn out of the body. The aqueous parts of our fluid never turn acrid; and the terreſtrial are ſeldom found acrid. The ſtone and gravel ſhew ſome acrid particles; but thoſe are rather the ſaline particles, that have mixed with the terreſtrial.

Our oil is a moſt mild ſubſtance: but yet, it is eaſily changed into an acrid. For if any one takes too much oil, he ſoon throws up nidorous eructations; and the oil is changed into a moſt acrid ſubſtance, burning and exulcerating the very bones.

There are three kinds of acrids produced in our bodies, *viz.* an *acid*, *oily*, and *alkaline* acrid.

The

The *acid acrid* is cauſed by the ſtagnation of vegetable food: if it remains too long in the ſtomach, it becomes very acrid, unleſs ſome animal ſubſtance is mixed with it. Milk, indeed, though it is an animal fluid, is not excepted; for it often turns acid in the ſtomach.

The *oily acrid* is produced by putrefication; for all the fluids in our body, if they are expoſed to a heat, which is equal to the heat of our body, are preſently diſſolved, and raiſe a great ſtink, that is putrify; which putrefication proceeds from the volatile ſalts and oil. For if you diſtil ſalts and oil from them, what remains will have neither ſmell nor taſte; and when the oil is free'd from the ſalt, it no longer ſtinks. Whence, it appears, that oil has its putreſcence from the ſalts, which however muſt be diſſolved to excite a ſtink. Expreſſed oil is always mild at firſt, but becomes acrid in time. The diſtilled oil is always acrid, even from the beginning.

Alkaline acrids are either volatile or fixed: the laſt have earth added to them, from which the volatile are free'd. Hence the fixed are more acrid, becauſe more heavy.

Hitherto muſt be referred the ſpirituous acrids; ſuch as all fermented ſpirits, which are moſt acrid, as appears from ſpirit of wine. Salt of vegetables alſo become acrid, if they ſuffer too great attrition by motion and heat. The ſalts of vegetables are either eſſential, as honey, manna, *&c.* or artificial, which are either obtained from the expreſſed juice of ripe ſucculent plants, or by fermentation, as tartar.

Acrids which come into our bodies from without, enter by the lungs, gullet, ſkin, or abſorbent veſſels. The acrids, which are brought into the body by theſe ways, are various, as *foſſile*, *mineral*, and *terreſtrial* bodies: alſo *acid*, *fixed*, and *aromatic acrids*.

The *foſſile* and *mineral acrids* enter the body with their powers entire, and are eaſily changed, as ſal gemmæ, borax, ſal ammoniac, vitriol, nitre, and metalline ſalts.

The

The *terreſtrial acrids* are, allum, and oil, falſely call'd, as petrolium.

Acid acrids are the juices of ripe fruit; or obtained by art, namely, by fermentation. Thus, of muſt is made wine, and of wine, vinegar; which are the ſlighteſt acids: the fixed are more ponderous, therefore more acrid, as foſſile ſalts brought into a liquid form, as oil of vitriol.

Aromatic acrids abound with oil, and an acrid ſalt conjoined. They are hot, odorous, and of an acrid taſte; as pepper, ginger, garlic, onions, cinnamon, mace, cloves, nutmeg, and all other aromatics.

All theſe act by ſtimulating; but if they are taken in too great quantity, they burn the ſtomach and bowels, and occaſion fevers.

Our fluids become acrid three ways, *viz.* by *attrition*, *attenuation*, and *reſolution*.

Firſt, Every thing that increaſes the velocity of the blood, conſequently its attrition, wonderfully produces acrimony in us; by changing the oblong viſcid, and globoſe particles, into ſharp-pointed, ſtimulating and angular ſalts. But the particles of blood contract acrimony from too violent a circulation, as is maſeſt, even from this, that if a healthy man, who takes no food, but ſuch as is mild; whoſe evacuations and retentions have nothing of acrimony in them, but are quite inſipid; is ſeized with a burning fever; his blood, ſuffering a great preſſure and attrition, by the accelerated motion of the heart, and by the paſſage of it through the ſmalleſt veſſels, will become more and more acrid, eſpecially if diluting medicines are not adminiſtered; 'till at laſt it comes to that degree of acrimony as to eat the veſſels, and produce *aphthæ*, and internal inflammations, not to be cured without a great quantity of diluents. Hence the ſame evils ariſe from an accelerated motion of the fluids, as from acrid poiſons taken into the body.

Secondly, Whatever attenuates the fluids, makes the ſalts, for the moſt part, acrid; for the angles are thereby multiplied, on which acrimony depends.

Thirdly,

Thirdly, Every manner of reſolution does the ſame; for the part, which had concreted, being reſolved and free'd from its globoſe texture, becomes acrid. That acrimony is produced by *putrefaction*, which follows ſtagnation, is evident; for, by the heat and motion of the neighbouring veſſels, there is formed an attrition in the ſtagnating humour; this appears, from various experiments. For if the blood of a healthy perſon be kept ſome days in a veſſel, it becomes fœtid, very acrid, and quite urinous. Whence, 'tis manifeſt, the blood putrifies by ſtagnating, in the ſame manner, as water. This putrefication is promoted by means of heat or warmth; for, by this means, the particles are put in motion, and, by their action on each other, become acrid; but if the motion be too violent, then the more aqueous particles being exhaled, thoſe which remain coaleſce, as if they were condenſed by cold; hence ſchirruſes ariſe from too much heat, as well as too much cold. For putrefaction, as we ſhall afterwards have occaſion more fully to explain, is one of the inſtruments in nature, whereby many great and ſalutary changes are brought about. It conſiſts in a ſeparation, reſolution, or diſunion of the parts; which, being much volatilized and attenuated, fly off, as they chiefly conſiſt of *phlogiſton* and *ſulphur*, intimately mixed with an acid ſalt; and the more time theſe have got to unite, the more offenſive is the effluvia. As putrefaction is a diſunion of parts, ſo all bitters and aſtringents are powerful anticeptics.

The fluids muſt, however, undergo ſome degree of putrefaction; for the coction of the humours is nothing elſe but a putrefaction; for whenever they are in that ſtate, they are more fluid, and fitter to paſs through the ſmaller veſſels, where they ſtagnated before; for reſolution or tenuity is an inſeparable character of putrefaction. We often find, in the offenſiveneſs of ſweat, or other excretions, conſequent upon a criſis, indiſputable marks of corruption. The time of reſolution, or putrefaction, depends upon the degree of heat, the habit of the patient, and upon the part obſtructed; hence ſuch a variety in the duration of fevers of different kinds, and the uniformity in others, that are of a like nature.

Reſolution is a putrefaction of the impacted matter only; but ſuppuration implies a corruption of the veſſels alſo.

Formerly nothing was called putrid, but what was offenſively ſo; whereas, in truth, every fibre becoming more tender, and every humour becoming thinner, may be conſidered as putrid, in ſome degree, whether the change tends to the better health, or deſtruction of the perſon; or whether it becomes grateful or offenſive to the ſenſe.

As the humours become thinner by putrefaction, ſo the ſolids are relaxed, and rendered more tender by the ſame proceſs; the firſt is neceſſary for health, the ſecond is inconſiſtent with it.

Now let us conſider the conſequences of theſe two faults.

If the blood is viſcid, glutinous, and ſizy, the circulation, in an elaſtic veſſel, will diſtend and preſs upon its ſides more ſtrongly than a thinner, and more rare fluid, ſo the ſides will become more ſtraight and tumified; and, by preſſing upon the neighbouring veſſels, like a wedge, will interrupt their circulation, or perhaps burſt the ſmall capillary veſſels, and produce ulcers, *&c.* If the circulation is only interrupted, then obſtructions, tumifications, indurations, ſwellings, and diſeaſes of the cold, chronical, and nervous kind, will enſue; which will not only tumify, relax, and ſpoil the glands, both internal and external, but eſpecially thoſe properly called emunctories; and thereby ſtop the ſecretion, and fill the body with viſcid and morbid juices: and, by the diſtention, hardneſs, and ſwelling of the glands, and capillary veſſels, will conſequently preſs upon the nerves, and interrupt the circulation of the nervous fluid: and, from the languid motion and ſtagnation of the fluids, the ſaline particles diſentangle themſelves of the balſamic part, break through their ſheaths, become ſharp, corroſive, acrid, and ranced, and exert their deſtructive force upon the ſolids.

Hence, we ſee, that the firſt fault of the blood, in itſelf innocent, ſoon produces the other; which is of very hurtful conſequence, and we are next to conſider. This fault, however, is removed by medicines, which incide, attenuate, and dilute.

'Tis ſurprizing the wonderful effects of acrid ſalts upon the human body; their force and activity enable them to corrode, tear and deſtroy the tender and delicate

cate veſſels, and occaſion acute pains, corroſive, ſcorbutic, and cancerous ulcers and ſores, over all the body; and, by their corroſive quality, prick and twitch the nervous fibres, and thereby throw them into ſpaſms and convulſions: and the ſolids, being ſtimulated and corroded, occaſion the circulation to be carried on with too great velocity and hurry; the blood loſes its due fluidity and balſamic quality, which is conſumed and burnt up with the corroſive, acrimonious ſalts: ſome great and noble veſſel is attacked, ſpoiled, and deſtroyed; various diſeaſes of the inflammatory kind are produced, as hectic fevers, conſumptions, *&c.* The blood veſſels, being burſt and corroded, occaſion hæmorrhages; or the ſolids being weakened, relaxed and broken, ſuffer the thin acrid ſerum, to ooze through their ſubſtances, and thus beget a partial dropſy, or a true aſcites.

In order to cure and prevent theſe terrible diſeaſes, that ariſe from acrimony, we muſt involve the acrid particles, and incloſe them, as it were, into a capſula, in the ſame manner, as the ſheath contains the knife; for we have already obſerved, that while they remained incloſed, in the animal oils and fat, they were not only innocent, but uſeful.

Now there are general obtunders of acrids, whatever ſort they are; and ſpecifical, which obtund only a certain ſpecies of acrids.

The *general dimulcents*, and obtunders of acrimony, are *oils*, recently expreſſed, or freſh drawn from almonds, ſeeds of the *palma chriſti*, *&c.* *Aqueous infuſions* from farinacious ſeeds, reduced to a tenacious mucilage, as St. *John*'s wort, white lillies, *&c.* All *native oils* of animals, as butter, cream, fat, ſecreted and collected, eſpecially the marrow of animals; alſo the *oil* of *wax*, which is the only diſtilled oil that is not acrid. All theſe general obtunders are of excellent uſe, where there is a ſign of much acrimony; nay, the moſt acrid poiſons may be enervated by them. In the worſt ſcurvies, and when the blood abounds with acrid particles, if the patient, though never ſo languid, takes cream, freſh butter, or marrow of animals, for ſome time faſting, he will find himſelf wonderfully cured. Marrow alſo is of great ſervice to thoſe, whoſe bones are ſo dry, that they cannot be moved, without making a noiſe. Nay, in a wandering gout, commonly called rheumatiſm, nothing is of more

ſervice than oil of *palma chriſti*, ℥j every morning; and thoſe that cannot bear the crude oil, may take emulſions, infuſions, decoctions, &c. of inſipid, inodorous, and ripe plants, which yield no oil; for, in theſe, the oily parts lie hid, and involved in others; they operate alſo partly by means of their glew, which intangle the acrids in our bodies; and partly by means of their own covered oil, as marſhmallows, pillitory, mercury, &c. for all the preparations of theſe are demulcents. A conſumption has ſometimes been cured, only by taking lettuce. But it muſt be obſerved, theſe are of no ſervice, when the acrid is tough and thick; but of great ſervice in a hot acrimony.

Alſo all ſeeds, out of which oil may be expreſſed, are excellent demulcents, as emulſions of almonds, nuts, barley, oats, wheat, rice, rye, walnuts, &c.

Viſcid and inſipid gums, eſpecially gum tragacanth, &c. diſſolved in water, operate beſt of all; and even cure the making of bloody water, in the ſmall pox. Alſo all ſucculent and concreſcent parts of ſound animals, except the bile and urine: all gellies, obtained by boiling parts of animals, are of ſervice; thus eggs, fleſh, and all our ſolids, except the fat, may be reduced to a gelly; for gellies are nothing but the nutritious juices, that are ſeparated out of the ſolids, by the force of boiling, as appears from hartſhorn; for, after boiling, there remains nothing but a caput mortuum. Thus alſo, fleſh, boiled to the conſumption of the moiſture, if it is diſtilled, yields only an empyrumatic oil; therefore jellies and decoctions of tendons, membranes, and inteſtines, are demulcents. Wherefore innumerable diſeaſes, ariſing only from acrimony, are cured by a diet of ſuch broths.

The *ſpecial demulcents* are all terreſtrial abſorbents; of which ſome, though on account of their figure, may be thought to wound and injure, yet are demulcents; for if they meet with an acid acrid, they enervate it by abſorption. Thus the filings of ſteel have acrid ſpicula, yet they enervate the oil of vitriol. The abſorbents of an acid are crabs eyes and claws, calcined ſhells, all calces, &c. theſe abſorb an aſcid, and, being united with it, form a third kind of body. Acids alſo may be abſorbed by native earths, as chalk, boles, &c. by the calces of metals, and by marcaſites, ſteel, lead, tin, reduced to powder. Theſe are chiefly oppoſite to acids; and by theſe the moſt acrid and ſtrongeſt poiſons may be aſſuaged. Thus corroſive mercury, if well rubbed with filings of ſteel, becomes

becomes harmleſs; vitriol, ſaturated with ſteel, is an innocent medicine; and lapis infernalis may be deprived of its cauſtic power by filings of ſteel, or crabs claws, *&c.*

All acid, with regard to alkalines, are dimulcents; though conſidered by themſelves they may be moſt acrid; for acids, mixed with alkalis, raiſe an ebullution 'till the acid has rarified, divided and penetrated the pores of the alkali, which is nothing elſe but a terreſtrious ſolid matter; which, however, has pores ſo figured as to admit the points and edges of the acids, to inſinuate and enter into them; which, by their ſharpneſs, ſtrike and divide the particles of the alkali, and occaſion an efferveſcence, more or leſs, according to the nature or degree of compactneſs of the alkali, and ſtrength of the acid.

When we conſider efferveſcence in this light, we can eaſily account, why an acid efferveſces with any other acid; ſeeing the angles of the one may be more acute than thoſe of the other; conſequently inſinuate themſelves into the body of the other; and, like ſo many wedges, tear and divide the other, in doing of which, they raiſe a fermentation: for few bodies are without ſome pores, which more ſubtile bodies find means to enter.

An acid and alkali do ſo deſtroy one another, in the conflict; that the latter, having all its pores penetrated, by the acid, which deſtroy the conſtruction of the parts, is no more an alkali; and the acid breaks and forces its points ſo much as to retain only a ſharpneſs.

Hence, we ſee, 'tis ſufficient to entitle any body to the name of an alkali, to have its pores ſo diſpoſed, that an acid can enter, and by its motion divide and ſeparate its particles. Iron contains an acid vitriolic ſalt, yet it ceaſes not from being an alkali, as it ferments with acids; occaſioned by its containing more earth than ſalt, and having its pores ſo diſpoſed, as to admit an acid; therefore it does the office of an alkali.

An acid can precipitate what an alkali hath diſſolved; becauſe the acid, having diſſolved and ſeparated the parts of the alkali, makes it let go its hold, and the body precipitates by its own weight.

All

All freſh juices of ripe and acid fruit, as cherries, medlars, grapes, pears, apples, currants, are moſt excellent medicines in thoſe diſeaſes, where it appears, that an alkali predominates; as in the plague, ſmall-pox, meaſles, burning fevers, *&c.* ſubacid whey, butter milk, *&c.* are able to obtund any alkali, either fixed or volative; a diarrhæa proceeding from a predominant alkali in the bile, or rather a putrefaction of the bile, alſo tertian fevers have been cured by drinking plentifully of butter milk.

All fermented acids, prepared of all ſorts of ſeaſonable fruits and meals, which are called accloſe, rather diſſolve than coagulate. Hence moſelle and rheniſh wines are the beſt, eſpecially if a little ſpirit of ſal ammoniac is added, in thoſe diſeaſes, in which the thirſt is intenſe, and the bile very much vitiated.

Alſo when an alkali is ſaturated with diſtilled and fermented liquids, crude tartar, which is a dry vinegar, ſpirit of ſea ſalt, ſulphur, vitriol, nitre, *&c.* it conſtitutes a mild body, as is evident from vitriolated tartar.

All alkalines, with regard to acids, are demulcent. An alkali and an acid claſp one another ſo cloſely together, as to form a coagulum; and, by their united weight, precipitate to the bottom. But, by alkalines, for diſtinction's ſake, are generally underſtood three kinds of ſalts; namely, *firſt*, all fixed ſalts, extracted from burnt vegetables; theſe are very corroding, but oppoſite to all acids; and, after their conflict with them, conſtitute a moſt mild body;

Secondly, All volatile alkaline ſalts, prepared from vegetables by diſtillation, after the putrefaction of the plants;

Thirdly, Volatile alkaline ſalts, prepared from animals by diſtillation, called urinous. All putrid parts of animals afford ſuch a fœtid alkaline ſalt. All ardent ſpirits deſtroy acidity, and dulcify acids, as the rectified ſpirits of wine, digeſted or diſtilled, with ſome acid ſpirit, as ſpirit of nitre, vitriolic ſalt, or aqua-fortis.

CHAP.

CHAP. II.

Of the CIRCULATION *of the* BLOOD.

THE equal fluidity of the blood depends upon its uniform and regular circulation and motion, by which the blood continually flows from the heart by the arteries, and returns again by the veins. But the circulation of the blood depends upon the action of the ſolids, when that ceaſes the motion of the blood ceaſes; and, by its attractive quality, forms coagulums, and loſes its equal fluidity.

The circulation is performed thus: the blood is carried by the aſcending vena cava, to the right auricle of the heart, thence into the right ventricle of the heart; and after its rarefaction there, into the left auricle of the heart; thence into the left ventricle; and from that into the pulmonary artery: and, after undergoing a further degree of attenuation and rarefaction, it is thrown into the aorta aſcendens; thence deſcending, is diſtributed through all the parts of the body: out of which it is carried into the correſponding branches of the vena cava and porta to the right auricle as before. This circulation of the blood is deſigned for the nouriſhment of the body; for preventing putrefaction; and for the generation of the animal æther or ſpirits. The time the whole maſs of blood takes to make a compleat circulation, differs in different conſtitutions, as alſo in a healthy and diſeaſed ſtate of the body.

The primary cauſe of the circulation of the blood proceeds from the irritation it gives to the nerves, which throws them into ſpaſms and convulſions. So that the circulation of the blood is carried on by the ſpaſms of the nerves; and the nervous fluid circulates by means of the impulſe of the ſoul, and the ſtimulus of the atmoſphere: for we are to conſider the nerves as a diſtinct ſyſtem of veſſels, whoſe fluid or æther circulates by means of the air, and the ſtimulus it receives from the circulation of the blood in the larger veſſels. Obſtruct only perſpiration, and you give more labour to the ſoul, which ſtruggles in executing its office, and raiſes thoſe dejecting thoughts, thoſe

thoſe wild imaginations, that attend nervous complaints: if perſpiration is greatly obſtructed, and the ſolids much relaxed, then the ſoul finds too much to do; and therefore ſuccumbs under it. Then the patient lies ſpeechleſs, motionleſs, ſtupid, inattentive, and to all appearance dead; the contrary is only known, from the ſmall beating of the pulſe, a degree of heat, and ſmall breathing: except when the fits, raiſed by a fermentation of the humours, or rather an additional ſtimulus upon the nerves, by the accumulation of morbid matter, raiſe a convulſion of the ſyſtem, which ariſes from an effort to throw off the offending matter. Then the patient is tortured with the moſt terrible terrors, horrors and deſpair, that can affect a mortal: but if the nervous fluid freely circulates, then the perſon is joyful, pleaſant, and good-homour'd; and the ſoul then believes its houſe, or tabernacle, to be in perfect ſafety.

The firſt principle of motion then, or the *primum mobile* of the whole machine, is the ſoul, which gives the firſt impulſe to the nervous fluids, which tend to it as the radii of a circle from the circumference to the center. When they have once received their impulſe, which is the firſt ſyſtole, or contracting motion of the brain, anſwering to the diaſtole, or dilating of the heart; the quantity, turgeſcence and acrid quality of the blood, ſtimulating and irritating the nerves, and dilating the muſcular coats of the heart, occaſion a greater influx of the nervous fluid to the irritated part, which throws the heart into violent ſpaſmodic and convulſive affections; and, being made up of ſtrong muſcular parts, naturally elaſtic, ſtruggles in order to diſengage itſelf of the offending fluid, which it at length accompliſhes by a ſtrong contraction, called the ſyſtole of the heart, whereby it throws into the arteries its contained blood; which occaſions their diſtention, called the diaſtole of the arteries: ſo that the ſyſtole of the heart anſwers to the diaſtole of the arteries, and *vice verſa*.

Now, if our blood was never to be ſtopt by the canals, through which it flows, and if the continuity of the canals was never to be interrupted; then, being once put in motion by the firſt ſyſtole of the heart, it would always continue to move. But whoever conſiders the reſiſtance that a fluid, moving thro' the aorta and all its branches, muſt meet with from friction, which increaſes as the diameters of the veſſels decreaſe, and from the mutual attraction, coheſion or impulſe of the particles of matter to each other, and to the ſides of the veſſels

veſſels in which they move, will find, by calculating the projectile force of the heart, that it is not ſufficient to drive the blood through the ſmalleſt veſſels: for the momentum of a red globule of blood, ariſing from the preſſing force of the heart, is not ſufficient to overcome the reſiſtance it meets with, when it has only arrived at a red capillary artery: but if the momentum of a red globule, in a capillary artery, is ſo ſmall, it is evident that the ſerous, lymphatic, *&c.* globules, which move with the red ones, muſt receive a very inconſiderable impulſe from the projectile motion of the heart; ſurely not ſufficient to puſh theſe fluids through the various lymphatics, and inferior orders of veſſels. *Lewenhoek* thinks, that the projectile force of the heart reaches to the capillary arteries of the firſt order, and for ſome ſmall way along their correſponding veins, eſpecially when thoſe are not far from the heart: for the velocity of the blood is greater or leſs, according to the diſtance from the heart, the exceſs of the areas of the branches above the trunks, the angles at which the branches go off from their trunks, and the various flexures and convolutions of the ſmall arterial ramifications. Hence we ſee that the heat, which is generated from the friction of the blood upon the ſides of the veſſels, and the inteſtine motion of its parts againſt one another, is greateſt in the heart and lungs: hence we ſee the abſolute neceſſity of freſh air, to cool the blood in its paſſage through the lungs, eſpecially in inflammatory diſeaſes.

Thus it is evident, that the force of the heart is not ſufficient, of itſelf, to carry on the circulation; and as matter cannot move itſelf, of itſelf alone, it's neceſſary that our liquids ſhould receive a new motion, where they have loſt their own. Therefore, beſides the ſyſtole of the heart, which we may call the primary cauſe, there is another, *viz.* the elaſticity of the veſſels, or that force, by which their ſides, being diſtended by the blood flowing in, endeavour to reſtore themſelves to their former ſtate. For the blood, being driven with great force from the heart into the arteries, immediately diſtends, and gently irritates their internal coats; which being elaſtic and ſenſible, when the force of the heart ceaſes in its diaſtole, by the conſtriction of their circular fibres in the tendineo-carnous coat, immediately contract and reſtore themſelves; and with greater force the more they are diſtended: by which means the blood is thrown into the veins, by every ſyſtole of the arteries; and their diaſtole is what we call the pulſe, occaſioned by the blood's motion out of a larger paſſage into a

ſmaller, with a great force. This motion occaſions their expanſion; and, by the reſiſtance, their coats, which are double, give to the paſſing blood, the ſyſtole is produced. The veins have no pulſation, becauſe the blood, diſcharged from the arteries into the veins, goes from a narrower paſſage to a wider, with a ſlower motion; and theſe veſſels accommodate themſelves more to the paſſing blood, and thereby are not expanded with the force, that is required, to make a pulſe.

The contraction of the arteries may be conſidered as a continuation of the heart's force, for it communicates little new force to the blood; for, with whatever force the arteries contract, we know it is leſs than the ſyſtolic force of the heart, as is evident from the blood's being always obſerved to be projected to a greater diſtance, from a cut artery, during its diaſtole, than in the time of its ſyſtole. Therefore, as the force of the heart, as we have already ſhewn, is inſufficient to continue the circulation through the ſerous, lymphatic, and nervous veſſels; and as the alternate contraction of the arteries depends on their preceding dilatation by the heart; for we ſee that ſerous, lymphatic, and capillary arteries, to which the projectile force of the heart does not ſeem to reach, have no ſuch obſervable alternate dilatation or contraction of their coats; therefore the alternate contraction of the arteries contributes little to puſh on the contained fluids, and muſt be inſufficient to convey them through all the parts of the body.

The gravity of the fluids, if we could exactly aſcertain what that is, contributes perhaps, in ſome ſmall degree, to promote the circulation: but, in a horizontal poſition, it has no effect; and, in an erect poſture, it muſt retard the return of the blood, by the vena cava inferior, as much as it promotes its motion downwards in the aorta and its branches. The foregoing cauſes being therefore inſufficient to carry on the circulation of the fluids in the very ſmall veſſels; and as the ſmall veſſels are not unactive, and their contained fluids do not ſtagnate, in a healthy ſtate, we muſt ſtill look for ſome other cauſe, which we can be at no great loſs to find, when we conſider the nature of the fluids, and the canals through which they run; the one abounds with ſaline, and the other with acrid particles, which prick and irritate, and thereby render it extremely fit to act as a gentle ſtimulus upon the other, which is made up of delicate, ſenſible fibres, very fit to be acted upon as a ſtimulus, which may be demonſtrated

ſtrated in the larger veſſels; and 'tis highly reaſonable to believe that the ſmaller veſſels are endowed with an equal, and probably a far greater ſenſibility. This acrimony of the blood firſt ſtimulates the tender veſſels into contraction; which contraction, or vibrating ſtate, is perpetually kept up, by the heat and inteſtine motion of the blood; which increaſes its ſtimulating power. As we ſee in many inſects, &c. the circulation becomes more languid, as the weather grows colder; and, in the winter ſeaſon, is entirely at a ſtand, they are to all appearance dead; till, by the heat of the returning ſpring, the particles of the fluids begin to have an inteſtine motion, and to be briſkly agitated; conſequently the ſolids are irritated and ſtimulated into alternate contractions.

From hence we may learn the poſſibility of a perſon's retaining a latent principle of life, after remaining days, weeks, and months, without diſcovering any appearance of ſenſibility, reſpiration, or other apparent ſigns of life. This doctrine, however true, is not modern, nor ſo much regarded as it ought; otherwiſe we ſhould not have ſo many buried alive, as I am afraid are. In my humble opinion, it is not only imprudent, but inhuman, to inter any perſon, before we are convinced, from moſt evident marks, that he is certainly and irrecoverably dead; which is not certain, 'till the body begins to putrify.

As our modeſty ought always to be proportioned to the difficult and intricate nature of the ſubjects we pretend to conſider, ſo we frankly acknowledge, that there are a great many ſecrets in nature, and probably numberleſs latent circumſtances in the animal œconomy, that we are unacquainted with; and as perſons, of a curious and attentive turn of mind, daily obſerve accidents, which they before thought impoſſible; ſo we need not doubt of ſurpriſing facts, related by men of learning and candor; nor formally deny the truth of events, which, at firſt, appear incredible.

Many examples might be brought to ſhew that the principle of vegetable and animal life may be preſerved, while the circulation is very languid, if not entirely interrupted.

The principle of life and vegetation, which plants, &c. retain, during the winter, is repelled by the cold to the roots and ſeeds; where it circulates in a very languid manner, without having force to propel buds, bloſſoms, and

flowers; 'till the kind and genial heats of the ſpring render it more powerful and active.

Certain inſects paſs the whole winter in chryſalides, without diſcovering the ſmalleſt ſign of life; though 'tis certain they are not dead; ſince a ſmall degree of heat only is needful to produce their laſt metamorphoſis. The reaſon of this apparent death is the cold of the atmoſphere; which ſo inſpiſſates their fluids, as to make them only circulate in a faint and languid manner, round a very minute center.

The phænomenon is not only obſerved, in the chryſalides of inſects, but the ſeminal principle is alſo preſerved free from coagulation, and without diſcovering the ſmalleſt ſign of life, as in eggs. The red point in an egg, that is cold, after being ſat upon, ceaſes to beat; but revives, upon being touched with the warm finger, or breathed on, and moves on as before. Dr. *Harvey* remarks, that the hearts of ſeveral ſmall fiſhes are only ſeen to beat in warm weather.

Aquatic inſects plunge themſelves into the mud; where they remain, without motion, till the ſpring; which holds equally true of frogs and toads, which are found in holes, near ſprings, in great numbers, with their mouths ſhut.

Mr. *Reaumur* hath ſhewn, that ants, during the winter, remain apparently dead, till the approach of the ſpring.

Some animals too, whoſe blood circulates in the ſame manner, with that of the human ſpecies, have their circulation and perſpiration ſuppreſſed during the winter, but they return in the ſpring. Thus the ſwallows, during the half of the year, are dead, and the other alive. Some ſpecies of them ſpontaneouſly ſeek a refuge in the waters; others fly into foreign countries, and if they find their ſtrength decay in their paſſage, they plunge into the ſea, and there remain till the genial ſpring rouſes their latent principle of life; ſome of them conceal themſelves in the holes of old and decayed buildings; others in ſand, or in their neſts in hollow trees, *&c.* *Fortunus Licetus* affirms, that in upper *Poland*, every perſon may be experimentally convinced, that the ſame ſwallows, which, in ſummer, build their neſts upon the tops of houſes, towards the end of *September*, plunge themſelves into ditches and rivers; where they remain, 'till about

about the middle of *May*. He alſo ſays, that when the inhabitants, ſeeking fiſh, break the ice; they find large cluſters of ſwallows, adhering to each other. The people employed among the rocks, in the *Baltic* ſea, in ſearch of amber, frequently find large cluſters of ſwallows.

If it ſhould be aſked, whether theſe animals, during ſuch eſtate, retain a principle of life; I anſwer, that the thing is not only probable, but may be alſo evinced, by taking them to the fire, which ſoon revives them. They are enabled to live without aliment; becauſe they are, as it were, locked up in ſo lethargic a ſleep; that they ſuſtain no loſs or diſſipation of their fluids; and conſequently require no reparation.

Fiſh too not only appear dead, but are covered over with a cruſt of ice in their holes, without having the vital principle deſtroyed in them. But fiſhes, thus frozen, do not long ſurvive their artificial reſtitution of life; becauſe, the froſt, having altered the principle of their blood; the vital ſpirit, when beginning to act and unfold itſelf, can no longer form a maſs of fluids of an uniform nature. Thus wine, or other liquors, frozen, and artificially thawed, contract a diſagreeable flavour; becauſe the ſolution, being procured in an unnatural manner, hardens the ſpirituous part of the wine from mixing with other principles, in the ſame order and proportion as before.

Though *Harvey* was the glorious diſcoverer of the circulation of the blood, and may, for that reaſon, be ſuppoſed to be a keen advocate in its behalf, yet he did not believe it abſolutely neceſſary to the preſervation of life; for he ſays, in *Lib. de General. Animal. Exercit.* 50. "Some ſanguineous animals live long "without any pulſe, and lie concealed during the whole of the winter; not-"withſtanding which, they remain alive; though their heart retains no mo-"tion, and their reſpiration ſtops; juſt as it happens to perſons attacked with "ſyncopes and hyſteric fits; whoſe pulſe is totally loſt." Though theſe relations may poſſibly appear very ſingular to perſons unacquainted with natural hiſtory, yet they infallibly prove that, in the brute creation at leaſt, reſpiration, the circulation of the blood, and pulſation of the arteries, may ceaſe for a long time, without the total extinction and deſtruction of life. Now is it not highly probable, or rather abſolutely certain, that ſomething ſimilar and analagous to this may happen to human creatures?

Dr.

Dr. *Cheyne*, in his *Engliſh Malady*, gives an account of one colonel *Townſhend*, who could, by compoſing himſelf on his back, die or expire, when he pleaſed; and by an effort, he could again come to life, and really made the trial before Dr. *Cheyne*, Dr. *Baynard*, and Mr. *Shrine*, apothecary. They all felt his pulſe, before the trial; found it diſtinct, though ſmall and thready; his heart had the uſual beating. Then he compoſed himſelf on his back, while Dr. *Cheyne* held his right hand, Dr. *Baynard* put his hand upon his heart, and Mr. *Shrine* held a clear looking-glaſs to his mouth: the pulſe gradually ſunk, till at laſt it could not be felt by the niceſt touch; nor could the leaſt motion be diſcovered in the heart; not the leaſt ſoil of breath appeared on the bright mirror; and by the niceſt ſcrutiny, they were able to make, could not diſcover the leaſt ſymptom of life in him, till at laſt, after ſtaying half an hour, they were going away, thinking he had carried the experiment too far, and was actually dead; but when they were juſt going to leave him, they diſcovered ſome motion about the body; and, upon examination, found his pulſe, and the motion of the heart, gradually returning: he began to breathe gently, and ſpeak ſoftly. This experiment he had ſeveral times performed before he ſent for the doctor.

We learn from *Diogenes Laertius*, that the celebrated *Empedocles* acquired uncommon honour, by reſtoring a woman to life, who was thought to be dead many days, and whoſe diſorder he diſcovered to be only an hyſteric fit. *Heraclides* of *Pontus*, a noted philoſopher, wrote a treatiſe upon this very ſubject, intitled, Περὶ τῦ ἄπνυ, of the diſtemper, in which the patient is deprived of reſpiration. In this he aſſerted, that the diſorder might continue thirty days; during which there was no reſpiration, or any other ſigns of life; without any marks of putrefaction; and that notwithſtanding, the patient might at laſt recover. How long have people been known to be in a profound ſyncope, and yet recover? The famous ſtory of cardinal *Spinoſa*, firſt miniſter to the king of *Spain*, is well known to the learned and curious.

But above all, how remarkable are the recoveries of people, after ſubmerſion or drowning, mentioned by authors. Thus, *Alexander Benedictus*, *lib.* 10. *cap.* 9. ſays, That life has been frequently ſeen reſtored to perſons, who have remained under water during twenty-four hours; and, for this reaſon, thinks it highly improper

improper to inter drowned and hiſteric perſons, 'till ſeventy-two hours after their ſuppoſed death.

Borelli, in *Cant.* ii. *Obſ.* 2. informs us, That a certain perſon of diſtinction, having remained for a long time under water, was taken for dead when he was found; but, proper efforts being made for his recovery, he was rouſed from his ſuppoſed death, and long ſurvived his misfortune.

Bunckel, in *Miſcellan. Nat. Curioſ. Decad.* iii. ſays, I am ſufficiently ſenſible, that in *Sweden*, no one doubts of the poſſibility of retaining life, under water, for eight days.

Many more examples might be produced, were it needful, to ſhew, that the principle of life, in the deplorable ſtate of ſubmerſion, may be retained, for a long time; becauſe the coldneſs of the water renders the circulation ſlow, and perhaps quite obſtructed, except in parts near the heart; and the tranſpiration is likewiſe ſuppreſſed. *Platerus* and *Barthol* account for it, as being the effects of a ſyncope; in which reſpiration, and the motion of the heart, is ſtopt. Now it is certain, from experience and obſervation, that theſe two functions may be ſuppreſſed, without the actual loſs of life; as is frequently obvious in violent ſyncopes and hyſteric paroxyſms, from which the patients do not often recover, in an hour or more; during which time, the ſlighteſt indications of life, by the pulſe and reſpiration, are not to be obſerved. If any one will ſay, that it is the exceſs of credulity, to believe, that a ſyncope may laſt for a week, or longer; and conſequently the motion of the heart and pulſe may be, for that time, ſuſpended, without neceſſarily producing death: I may reply, that the motion of the heart, and the circulation of the humours, are rather palpable ſigns of the exiſtence of life, than its proximate and immediate cauſes; but however that be, as I have not time to enter into that controverſy, let facts ſpeak for themſelves. The only uſe I would wiſh to make of this digreſſion, is ſeriouſly to adviſe people not to be too forward to inter their friends; for, as we know not the time of the ſoul's leaving the body, we ought never to allow the body to be committed to the earth, till apparent ſigns of putrefaction demonſtrate, that there is no hopes of recovery. Some ſay, that the ſoul leaves the body, in the laſt agonies of death; but to me, it appears much more probable, that the ſoul remains in the body, as long as it can be a habitation for it; which is probably

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a conſiderable time after the laſt agonies; even till the apparent ſigns of corruption appear.

A great deal might be ſaid on this ſubject; I ſhall only obſerve, that many people, I really believe, are interred before they are dead.

It were a good thing, to regulate funerals, by an act of parliament; in order to prevent ſo calamitous diſaſters. The moſt reaſonable means to recover people from this uncertain ſtate; which one cannot, with certainty, call either death or life, is to procure a certain degree of heat in the body, by laying the perſon in a warm bed, with one on each ſide of him; or by wrapping him up with warm flannels; uſing, at the ſame time, gentle, but conſtant friction, with all other ſtimulating medicines outwardly, as ſalts, aſhes, volatile oils, *&c.* with irritating gliſters, as that of tobacco. Let a perſon, at the ſame time, endeavour to make the lungs play by blowing into the mouth. As the diminution of the heat proceeds from the decreaſe of the circulation, it is neceſſary, internally, to exhibit ſtimulating cordials, as volatile ſalts, oils, *&c.* to bring the heart into contraction If the collapſed lungs cannot be inflated, by blowing into the mouth with a pipe, then reſource ſhould be had to bronchotomy; bleeding too ſhould not be neglected; and epithems, prepared of baum, rue, marjoram, amber, cinnamon, and lavender, ought to be applied to the region of the heart; the feet ſhould be bliſtered, or warm bricks applied to them; and as the genital parts, of both ſexes, have a near and intimate correſpondence with the heart, as is obvious from the effects of cordials, applied to thoſe parts, in ſyncopes, faintings, and other affections of the heart; ſo *Nymman*, in order to reſtore drowned perſons to life, orders theſe parts to be fomented with warm wine, in which cinnamon, cloves, muſk, and baum, have been boiled: in reſtoring drowned perſons to life, we ought to be mindful to uſe ſpeedy veneſection, eſpecially in thoſe parts moſt proper for relieving the head, as the ancles, and jugular veins. The uſe of veneſection, in ſuch caſes, muſt be ſufficiently obvious to every perſon, who conſiders, that drowned perſons, as well as thoſe which are hanged, die of an apoplexy of the ſanguineous kind, and not for want of reſpiration; or, as is commonly imagined, on account of the repletion, or choaking up of the breaſt with blood; for when ſuch perſons are laid open, the breaſt is found almoſt entirely void of blood, and the brain extremely inflamed; both which phænomena are highly agreeable to the laws of the circulation.

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As a falſe theory never fails to produce dangerous practice, ſo we have juſt reaſon to condemn the method of treating drowned perſons; as ſuſpending them by the heels, rolling and tumbling them about; ſuppoſing that they die of the water they ſwallowed, which is a notorious miſtake; for the water, ſwallowed by drowned perſons, deſcends into the ſtomach, and not into the thorax; ſo that it cannot prevent their recovery. This circumſtance muſt happen, not only ſo long as the perſon retains a ſenſe of his ſtate and condition, but alſo afterwards; for as the water is hindered from entering into the *trachæa arteria*, and lungs, by a mechanical effort, in which reaſon has no ſhare; ſo the lungs may, in this ſtate, be compared to an empty bottle plunged into water, into which the fluid does not enter; becauſe the air, it contains, reſiſts its acceſs; and this the rather happens, becauſe the motion of the breath, deſtined to attract the air, at that time, totally ceaſes; and, conſequently, nothing forces the water to enter, and fill up its places. The quantity of water found in the ſtomach of a drowned perſon, is too ſmall to be the cauſe of their death; ſometimes none at all is found. For the water, that comes from a drowned perſon, when ſuſpended by the heels, flows from his cloaths.

From what hath been ſaid, it appears, that we are not to conſider the force of the heart, and the contraction of the larger arteries, as the ſole cauſe of the circulation of the blood. The whole vaſcular ſyſtem is endued with a moving power, which is conſiſtently exerciſed into action, by the ſtimulus of the circulating fluids: ſo that as the ſmall veſſels, by means of friction, deſtroy, in part, the momentum of the blood, ſo they, at the ſame time, communicate, by their gentle vibrations, a new impulſe to them.

For a great variety of facts, beſides what I have mentioned, might be produced, clearly to demonſtrate an alternate contractile power in the ſmall veſſels, excited by irritation; and that every fibre of them, like a little heart, puſhes on the contained fluids; and the motion of the fluids, in the very ſmall veſſels, is far from being rapid; but juſt ſuch as might ariſe from this cauſe. The alternate contraction of the ſmall veſſels, is prevented from throwing the fluids backwards, from the reſiſtance ariſing from the ſemilunar valves of the aorta, and from the force of the heart, and larger arteries, being greater than that which oppoſes the tranſmiſſion of the fluids into the larger veſſels; and the alternate contraction of the ſmall veſſels, likewiſe the periſtaltic motion of the guts, proceeds, in ſuch a manner, as

to impel their fluids more onwards to the veins, than backwards to the larger arteries.

From what hath been ſaid, it is evident, that obſtructions may be formed without inflammation; for no obſtruction can produce an inflammation, excepting ſo far as it raiſes an unuſual irritation. The inflammation, occaſioned by bliſters, is not owing to an increaſe of the heart's force, or to the momentum of the blood, in the larger veſſels; though that is often the effect of the former; but is entirely owing to the action, or irritation, of the flies, on the cutaneous veſſels; which, by the action of the fluids in them, is greatly increaſed. Hence, we ſee, why fire, or warm mineral water, pumped upon the part affected, fomentations, cataplaſms, *&c.* are often more ſucceſsful than internal medicines, in removing obſtructions of the ſerous, lymphatic, and of the other ſmall veſſels, as in the rheumatiſm, ſciatica, *&c.*

An inflammation, therefore, is not owing to any increaſed force of the heart, and larger arteries, conſequent upon an obſtruction; but to the increaſed oſcillatory force, in the ſmall veſſels; whether it ariſes from ſome obſtructed matter, diſtracting their fibres, or from ſome acrid matter irritating them. But though the increaſed force of the blood, in the larger veſſels, is not the cauſe of the inflammation, yet it is frequently the conſequence of it: for as often as an inflammation is large, or the part inflamed very ſenſible, the whole nervous ſyſtem will be ſo affected with the pain, as to render the heart, and large arteries, irritable; at the ſame time that the blood, ſo vitiated, by the obſtruction, muſt act with a ſtronger ſtimulus than uſual. Accordingly, we ſee, that in inflammations, the pulſe is little changed, till the diſeaſe has continued ſome time.

Hence, we ſee, that in the cure of inflammations, beſides diminiſhing the force of circulation, in general, by blood-letting; a particular regard is to be had to the veſſels affected; whoſe extraordinary contraction ſhould be leſſened by emulcent, anodyne applications; and, in many caſes, by bliſtering the neighbouring part, or the part affected: and, accordingly, Sir *John Pringle* recommends bliſtering in a pleuriſy. Sinapiſms laid to the ſoles of the feet, remove, or leſſen ravings; not ſo much, by determining the blood ſo copiouſly to the inferior parts, but by raiſing a pain, ſo as to render the mind leſs ſenſible of the unuſual ſtimulus,

ſtimulus, or irritation of the brain; and, according to *Hippocrates*, the painful ſenſation being leſſened, in the inflamed veſſels, by dividing the mind's attention, the extraordinary oſcillatory motions of theſe veſſels, and, conſequently, the cauſe, which continues and increaſes the inflammation, muſt alſo be leſſened. Hence, we ſee, why muſic, ſudden fright, joy, amuſements, *&c.* eaſe pain.

Obſtructions, beſides thoſe of the ſchirrous kind, may be of a long ſtanding in the body, without tending either to inflammation or putrefaction; provided they are ſuffered to lie dormant; and the patient will not diſcover the leaſt uneaſineſs from them. Yet, as ſoon as they are opened, and the obſtructed matter put in motion, it then changes its innocent, indolent nature, into a very active and hurtful one; and acts upon the juices of the body ſomewhat ſimular to the *virus* of the ſmall-pox. Tnerefore, when we have opened the obſtructions, we ought quickly to evacuate the morbid matter; and nothing is better for that purpoſe than the different preparations of antimony.

Laſtly, From what hath been ſaid, of the recovery of perſons, out of hyſteric fits, ſyncopes, drowning, as alſo of the recovery of ſleeping animals, it is evident, that the circulation may be entirely ſtopt in the outward and ſmaller veſſels, while it continues in the larger ones; thoſe eſpecially that are neareſt the heart: and that the latent principle of life may be preſerved, when no external appearance of it remains. Therefore the contraction of the heart, the pulſation of the arteries, the circulation of the blood, and perſpiration, are not eſſentially neceſſary to life.

Chap. III.

Of the Solids.

As all diſeaſes muſt neceſſarily ariſe from the ſyſtem of the *ſolids* and *fluids*, intended or remitted in their motion, above or below the ſtandard of nature; for a due proportion of tenſity, conſiſtent with a due degree of fluidity, conſtitutes the happy medium, in which perfect health conſiſts;

And, ſeeing we have conſidered the fluids, we are now neceſſarily led to ſay ſomething of the ſolids; which may be faulty two ways, either by being too lax, or too elaſtic. And according to the ſtate of the ſolids, at the beginning of the diſeaſe, ſo is that grand diviſion of diſeaſes into *acute* and *chronical*, or ſhort and long diſeaſes.

There are three diſtinctions of acute diſeaſes, *viz.* the *extreme acute*, the *very acute*, and the *acute*.

The *extreme acute* ends the third or fourth day, at furtheſt, as the extreme acute apoplexy; alſo the peſtilential fever.

The *very acute* laſts, at moſt, ſeven days; as the cauſus, or burning fever.

The *acute* laſts twenty days, in its longeſt continuance, as the continual fever, without burning.

Every diſeaſe is chronical, that is not attended with eminent danger, and does not come to a period in a ſhort time.

When the conflict is very hot and briſk, we call it a fever; when it is ſlow and languid, we call it nervous or chronical.

The

The event of this conflict is either an entire, or partial victory of nature; or a partial or total prevalency of the diſeaſe. Theſe events are called criſiſes, or ſolutions of the diſeaſe; a ſudden alteration for life or death.

Firſt, If nature gets an entire conqueſt of the diſeaſe, through the ſtrength of the ſolids, then the fever ends in ſweating, *&c.* Here we have nothing to do, but recruit the ſtrength, and repair the ſolids.

Secondly, At other times, when the fibres are tolerably firm, though nature carries on the conflict with vigour, at firſt; yet is obliged to compound with the diſeaſe, and throw it upon ſome particular organ; and ſo the fever terminates in a critical abſceſs, *&c.* then the diſeaſe is called partial.

Thirdly, When the ſolids are ſo weak, that nature faintly carries on the ſtruggle, for a long time; without tending to either of the two criſiſes mentioned, and the morbid matter, through the feebleneſs of the conflict, is never ſufficiently broken, divided and fitted, to be carried out of the habit, by either of the two criſiſes; then the diſeaſe brings on an univerſal weakneſs, and feebleneſs of nature, an anaſarca, a general cachexy, or a bad ſtate of the juices, and relaxed ſolids, if not death. And this gives us the diſtinction between acute and nervous fevers.

We call that an univerſal diſeaſe, where all the actions, both animal and natural, are impaired. But if the ſolids are weak, and the fluids ſo bad, that the ſtruggle is very faint, imperfect, and ſcarce diſcernable, compared with the two former; the firſt attempts and beginnings of this ſtruggle, produce the ſymptoms of nervous diſeaſes; which, if allowed to go on, the morbid matter will increaſe, the conflict will become gradually ſtronger, and produce the terrible ſymptoms that attend nervous diſeaſes in their laſt ſtages.

If nature is left to itſelf, it goes on regularly, and proceeds ſtep by ſtep, one ſymptom producing another; and that a ſtill worſe. But many things tend to impede, or haſten this regular progreſſion of nature, as medicines judiciouſly and timeouſly adminiſtered, bad regimen, *&c.* and according to nature's progreſs, or criſis, the diſeaſe has the name of dropſy, aſthma, conſumption, *&c.*

There

There is a due degree of elaſticity needful in the fibres or ſolids, not only to carry on the circulation of the blood and juices; but alſo to break and ſubtiliſe them, that they may paſs thro' the fineſt tubes, and perform the neceſſary ſecretions and excretions, which are required to preſerve the body in health. When, through a defect of the ſolids, improper and noxious particles are generated in the blood; they gradually alter, ſpoil, and ſtop their attrition and collition; when the blood loſes its due fluidity and balſamic quality, all the juices, of conſequence, partake of it; and become filled and crowded with hard concretions, of the nature and qualities of thoſe with which the blood is endued. And being thus unnaturally nouriſhed, and repaired, will ſtop, ſtagnate and putrify; and by their * attraction, form into acrid and corroſive humours, replete with ſalts; which, by ſtimulating the ſolids, and puſhing on the fluids, greatly accelerate the circulation of the blood, and thereby heat the body. But whatſoever therefore deſtroys the power of ſtimulating acrids, will leſſen the contraction of the ſolids, and the velocity of the blood; and conſequently diminiſh the heat of the body, and thereby increaſe the cold. But acrids are deſtroyed by diluters, as water, whey, milk and water, *&c.* all which, if taken warm, act the better by penetrating and relaxing; acids with regard to alkalis, and alkalis with regard to acids: only acrids are deſtroyed by ſaponacious acids, ſeaſonable fruits, and lime-water; alſo all involvents, which wrap up the ſtimulating acrid, as gelatinous, farinacious, and terreſtrial fats, mild vegetable oils; likewiſe expellents, which drive out the impacted ſtimulator, as cathartics, emetics, dieuretics and diaphoretics.

The ſolids are ſubject to many diſorders, which may interrupt, or intirely ſtop their operation. They may be either too dry, or too moiſt.

The firſt ariſes from too hot, dry, and corroſive nouriſhment, *&c.* which renders them too criſp, over elaſtic and brittle, by which means the circulation is puſhed on with too great force, violence and rapidity; inſtead of that calm, uniform manner, in which the functions of the animal œconomy are naturally performed;

* By attraction, wherever in this book it is mentioned, I mean the particular conſtruction, form, and ſize, of the particles, or atoms, of any body, whereby the action of the æther, upon that body, is determined; for, according to the internal ſtructure of the atoms conſtituting a body, ſo the æther, or air, acts more or leſs ſtrongly and freely.

performed; that due ballance between the ſolids and the fluids is taken off, which is the cauſe of inflammatory diſorders, high fevers, and other acute diſeaſes.

On the contrary, if the fluids are hot and inflammatory, and circulate with great velocity, they ſoon criſp and dry up the ſolids, and render them very brittle and elaſtic.

In our bodies therefore, if the heat is increaſed, either the veſſels are too elaſtic, or the fluids hot and inflammatory. Therefore a coolneſs will be produced by relaxing the ſolids, or diluting the fluids. But the elaſticity of the veſſels is diminiſhed by all moiſteners, relaxers, aperients, diobſtruents, and hot baths. And the heat of the fluids is diminiſhed by attenuants and diluents, as water, and nitre, if too thick; by coagulaters, if too thin; and by emollients, obtunders, and diluters, if too acrid.

Secondly, A laxity, weakneſs, and want of tone and elaſticity, in the ſolids, render their actions languid, and produce viſcid, ſharp and ill-conditioned juices; which occaſion ſlow and cold diſeaſes.

On the contrary, ſharp and ill-conditioned juices neceſſarily produce weak and unelaſtic ſolids; ſo that they mutually exaſperate each other, and differ only as cauſe and effect; though the fault of the fluids always precedes that of the ſolids.

In our bodies, if the heat is diminiſhed, the circulation alſo is diminiſhed, and the ſolids are too lax; therefore whatſoever increaſes the velocity of the blood, and the elaſticity of the veſſels, is a heater. But the circulation of the blood may be accelerated by increaſing the ſtrokes of the heart, the elaſticity of the veſſels, and by acrids ſtimulating the ſolids, and puſhing on the fluids; as nettles, ſalts, and oils, which ſtimulate either by ſtopping perſpiration, or being acrid, by pricking and wounding. All ſoups, all juices of vegetables, containing ſalt and oil, all ſpirits, ſharp earths, ſulphurs and metals, heat frequently applied, all external motion, increaſe the circulation; alſo vehement cold, which, firſt of all, acts by giving a ſenſation of cold, but afterwards excites violent heat; as we ſee in fevers, which commonly begin with cold ſhivering,

ing, trembling, &c. but theſe ſymptoms are immediately ſucceeded by a great heat.

The elaſticity of the veſſels is increaſed, by whatever ſtrongly affects the nerves, as aromatics, oils, metallic bodies, ſalts, cauſtic bitters, fury, joy, continual exerciſe of the muſcles, &c.

There is another ſpecies of fibres, taken notice of by the learned Huxam, which he calls a tender and delicate conſtitution of ſolids, which is moſt readily and highly affected with pleaſure or pain; but in which the ſtamina are ſo ſlender, that a very ſlight accident breaks them. This is often obſerved in thin, fair perſons, of a very delicate frame, but exceedingly lively; in whom the ſpirit is willing, but the fleſh is weak: ſuch very often fall into hæmoptoë, or other hæmorrhages, colliquations, and a pulmonary phthiſis, and thence become, what is properly called, conſumptive.

A due conſideration of the ſtate of the ſolids, is a matter of high importance to phyſicians, not only in chronic, but alſo in acute diſeaſes; for they are generally the primary cauſes of the particular ſtates of the fluids; and a diligent inquiry into the ſtate of the ſolids, is of vaſt concern in the beginning of diſeaſes.

Put the caſe, that the juices are ſound and good, but the ſolids are laxer and weaker than they ſhould be; then the digeſtion, circulation, perſpiration and ſecretions, will be weaker; the food will not be ſufficiently broken and digeſted in alimentary tubes, the blood not ſufficiently divided by the force of the circulation, nor the excrements thrown off with due force, and proper quantity, ſufficiently to purify the juices; inſomuch, that they neceſſarily muſt become viſcid and ſharp, and their parts increaſe in bulk and hardneſs.

On the other hand, ſuppoſe the blood and juices are viſcid, ſharp, and ill-conditioned; the fibres ſubſiſting nearly in their proper tenſion and due tone of elaſticity, the neceſſary effect of ſuch a ſtate of the juices, would be a retarding the circulation by a greater preſſure upon the ſides of the veſſels, and the forming obſtructions in the ſmall capillary ones, which, by rendering them impervious, force a greater quantity upon the pervious, than they are accuſtomed,

or

or able to drive about; and by degrees break and looſen the texture, and relax the tone of all the ſolids; for when once the balance between the ſolids and fluids is broken, the machine muſt be ſhattered.

From hence we ſee, that a weak ſtate of the fibres, muſt neceſſarily imply a bad ſtate of the juices, and *vice verſa*.

All theſe general cauſes concur, in ſome degree, in forming all diſeaſes; but according as the ſymptoms ariſe, from this or that general cauſe, they have received their names from phyſicians; for the names of diſeaſes are only technical terms, expreſſing the ſtate of the ſolids and fluids.

If I put my hand upon a patient's ſkin, and find it hot and dry, I immediately know that the ſolids are ſpringy, tenſe and elaſtic; that they impel the fluids greatly; and the ſecretions, perſpiration, *&c.* are interrupted by obſtructions, by cold, *&c.*

When I put my hand upon the pulſe, and find it quick and ſtrong, I know that the heart's contractions are inforced; the fluids greatly impelled to accelerate their motion; by which they increaſe their attrition againſt one another and the ſolids, and are then greatly divided; and thereby become ſharp, and eaſily moveable, and would fly off from the body in great plenty; being, from their great ſubtilty, prepared, and, by their quick motions, having often opportunity; ſeeing they are frequently applied to the mouths of the ſecretory veſſels, which are prevented from letting them go, by an external preſſure from cold; which contracts, or obſtructs them, and thereby hinders perſpiration.

Hence I conclude, that the patient labours under a hot and inflammatory diſeaſe, no matter what it is called; and if ſo, will not bleeding, and gentle opening, and relaxing medicines, be proper to appeaſe the ſymptoms; for to attempt to raiſe a diaphoreſis, would increaſe the fever.

Again, if I put my hand upon a perſon, and find the ſkin cold and moiſt, I know that the ſolids are lax and feeble; conſequently they give a weak and languid impulſe to the fluids; and having touched the pulſe, I find it beats ſlowly, I know the heart contracts ſlowly; the fluids, receiving a faint im-

pulſe, move feebly; and are leſs divided, and become thick, ſizy, and heavy; and, from their ſtagnation, the ſaline particles, diſengaging themſelves of the balſamic part, attract each other, and criſtaliſe; and the other part becomes acrid, briny and rancid; and all the ſecretions are ſlow: all this ſhews me, that the patient labours under a cold diſeaſe, which you may call dropſy, or by whatever other name you pleaſe; for properly ſpeaking, there is no diſeaſe, but a fever; the other diſeaſes are only ſymptoms of the fever, and depend upon the diſpoſition of the ſolids and fluids, before the perſon is ſeized with the fever. This is the cauſe of a quincy, pluriſy, perepneumony, *&c.*

SECTION

SECTION II.

CHAP. I.

Of NERVOUS SIMPLES *and* COMPOSITIONS.

THOUGH this term may comprehend all the medicines that have any effect upon the nerves, yet here we have confined it to thoſe things, which have an immediate effect upon the nervous fluid, ſo as to accelerate and enliven the contraction of the ſolids, and the circulation of the fluids; that the ſenſation at the head, ſtomach, and heart, may become eaſy and agreeable: whatever anſwers this end is called, *cardiac*, *cordial*, or *cephalic*.

Whatſoever raiſes the ſpirits, and gives ſudden ſtrength and chearfulneſs, is termed cardiac or cordial, as comforting the heart, and raiſing agreeable ſenſations, which the head partakes of. Whatſoever therefore is grateful and ſerviceable to the nerves, may be called cephalic: as the head is to the nerves, what the heart is to the arteries. It is required, that the ſyſtole of the brain, correſpond to the diaſtole of the heart, and *vice verſa*.

For the due ſecretion, and regular diſtribution of the nervous fluid, or animal æther, it is required that the fluids be moveable, and fit to flow, and the veſſels in a proper condition to tranſmit them, in ſufficient quantities, to every part of the body.

Hence we may reduce cordials to three claſſes.

The *firſt* contains thoſe, which operate upon the circulating fluids, either by diluting them, if too thick; incraſſating them, if too thin; or by breaking, diſſolving, or deſtroying any ſharpneſs or acrimony lodged in them.

The *ſecond* includes thoſe, which act upon the veſſels, by rendering them fit to tranſmit the fluids; which is done by relaxing them, if too tight; or by ſtrengthening, winding up, and reſtoring their loſt elaſtic force, when too lax.

The *third* contains thoſe that act upon the nervous fluid, either by ſupplying their waſte, when, through too great a hurry of the animal functions, too long watching, too much exerciſe, *&c.* there is a languor or faintneſs; or, by ſtimulating, relaxing, and abſorbing them, if any uſeleſs matter lodges in their cavities, and thereby interrupts or clogs their circulation. But by the laws of univerſal circulation, there can be no local medicine, unleſs there be ſome mechanical condition in it, whereby it tends, by the circulation, to one place rather than to another. Therefore there is no medicine that acts immediately upon the nerves; but, ſecondarily, by preparing and diſpoſing the blood, before unfit to perform a regular circulation, and due ſecretion.

But ſome medicines may, from their mechanical condition, have a more immediate effect upon any particular part of the animal ſyſtem, than another. So under this head of cordials, and cephalics, we ſhall confine ourſelves to thoſe medicines, that, no ſooner enter the ſtomach, than they diſcover their cordial effects; and their ſubſtance being ſo fine and ſubtile, in all its parts, before it is received into the habit, ſeems to enter and ſoak into the nervous tubulæ, or pores of the minute veſſels, as ſoon as it touches them, and makes part of the nervous fluid; which maintains the due vigour and motion of the ſolids, or animal power, of moving the muſcles. Their good effects are not very durable; neither ought we to truſt entirely to them, for the cure of any confirmed nervous diſeaſe; ſeeing the ſubtilty of their parts enables them to paſs through the groſs fluids, without effecting any conſiderable change in them. And there never was a nervous diſeaſe, of long ſtanding, where the blood was not more or leſs a ſufferer.

In all nervous diſeaſes the blood is not ſo ſweet and balſamic, as in a ſtate of health; and as the animal æther, or nervous fluid, is moſtly generated from the blood, by its attrition and collition in circulation; ſo the more inſpiſſated, acrid, or ill-conditioned the blood is, the ſmaller quantity of the ſubtile animal æther is ſecreted: and ſeeing it is the *primum mobile* to all the other parts of the body, the circulation is more languid, than in a healthy ſtate. The ſolids too are relaxed beneath their natural ſtandard.

People that have weak nerves, generally have lax and tender bowels; a ſlow and obſtructed perſpiration; a weak and imperfect digeſtion; and the mouths of the cutaneous abſorbents are too much dilated.

By ſevere or too long continued evacuation by ſtool, you may hurt the contractile power of the bowels, interrupt the perſpiration, and bring on the ſymptoms, that uſually attend nervous caſes; and if the ſolids are not timeouſly braced up, with proper medicines, a confirmed nervous diſeaſe will unavoidably follow.

Some people are born with weak and ſenſible nerves; others fall into nervous diſeaſes by intemperance in eating or drinking, by too great evacuations, by fear, or from other diſeaſes imperfectly cured, *&c.*

In all nervous diſeaſes the veſſels are lax, the circulation languid, the digeſtion imperfect, and the perſpiration obſtructed; which occaſion a greater or leſs quantity of putrid matter to be bred in the body; and the texture of the body is always looſer, in proportion to the quantity of putrid matter, which it contains; and the more putrid a body is, the more air will be produced; and this air within the veſſels, either wholly detached from, or but imperfectly incorporated with the humours, is the cauſe of many ſymptoms in nervous diſeaſes, deep ſcurvys, *&c.* This air, or myaſma, occaſions thoſe vague and excruciating pains, thoſe nervous fits, which ſo cruelly torture the ſuffering patient. It ſometimes occaſions tumours in ſeveral parts of the body; ſometimes brings on ſudden and momentary numbneſs of the limbs, at other times convulſions and palſies.

Nervous

Nervous and ſcorbutic people are ſubject to acidities, and the heart-burn, on account of the relaxation of the ſtomach, as there is a higher fermentation of the aliment, occaſioned by the corrupted nature of the ſaliva and gaſtric humours.

In order, therefore, to cure a nervous diſeaſe, we ought, after cleanſing the *primæ viæ*, and evacuating the morbid matter, to brace up the ſolids, ſtrengthen the ſtomach, open a free perſpiration, correct the acrimony of the fluids, and promote a free and regular circulation.

Theſe intentions are anſwered, as I have largely ſet forth, in my *diſſertation* upon the *nerves*, by the uſe of the bark, bitters, chalybeate waters, cold bath, gentle emetics, camphor, antimony, hellebore, valerian, *&c.*

Indeed, in ſlight nervous caſes, where the ſolids are not much relaxed, and the juices pretty healthy; and in the tranſient nervous ſymptoms of otherwiſe healthy people, the medicines, under this head, may be made uſe of, with ſucceſs.

Light and nouriſhing meat and drink, of a taſte and ſmell agreeable, even to infants, are the propereſt food for the nervous patient, ſuch as milk, broths, young and tender animal meat, ſeaſonable fruits and herbs, *&c.* which afford a durable ſupport for the nerves; but they muſt paſs through ſeveral comminutions and digeſtions, *&c.* and are a long time e're they arrive at ſuch a fineneſs, as to render them fit to be abſorbed by the nerves, and to mix with the animal æther. Therefore they do not go under the appellation of cordials.

But all flowers, fruits, and herbs, of a ſweet aromatic effluvia, with a ſtimulating deterſive quality; alſo ſpirits and ſpirituous liquors, aromatic, oily, alkaline, and volatile ſalts, and compoſitions from them, all eſſential and aromatic oils, tinctures, ſyrups, and confections of this ſort, are ranked under this head.

Hitherto belong all antiſpaſmodics, or the removers of hyſterical and hypochondriacal ſpaſms; which, by relaxing the contracted nerves, and ſtimulating their fluid into a regular circulation, and due diſtribution, thereby prevent the pain from wandering to this or that muſcle, as caſtor, opium, muſk, aſſa-fœtida, *&c.* but theſe more properly belong to the next chapter.

SIM-

SIMPLICIA.

FOLIA.

ASCLEPIAS (VINCETOXICUM.) *Swallow-wort.*

Is of a ſtrong ſmell, approaching to that of valerian; of a ſweetiſh aromatic taſte, which ſoon becomes bitter, ſubacrid, and nauſeous. Its root is reckoned drying and warming, ſudorific, duretic, and alexipharmic; is ſometimes uſed as a ſuccedaneum to contrayerva by the *German* phyſicians; though, with us, it is very little uſed; as its ſenſible qualities ſeem to be much the ſame with valerian, which is preferable to it.

BETONICA. *Betony.*

The leaves and flowers have a rough herbacious, and ſomewhat bitteriſh taſte, accompanied with a weak aromatic flavour. It is a mild corroborant, ſomewhat balſamic and cephalic. Infuſions or light decoctions made of it, and drunk as tea, or a ſaturated tincture in rectified ſpirit, are given in proper doſes, in laxity and debility of the viſcera, and diſorders proceeding from thence; and to women, after hard labour. The roots have a very bitter and nauſeous taſte, and ſeem ſomewhat to reſemble the roots of hellibore; taken in a ſmall doſe, they violently purge and vomit.

CHEIRI. *Wall-flower.*

This grows upon old walls, has a pleaſant ſmell, ſubacrid, bitter, and diſagreeable taſte; is ſaid to be cordial, anodyne, aperient, and emmenagogue; good in apoplectic and paralitic caſes; eaſes pain, and promotes the menſes.

MAJORANA. *Marjoram.*

Is a moderate, warm, fragrant, aromatic; yields its virtues to aqueous and ſpirituous liquors, by infuſion, and to water by diſtillation; is principally celebrated in diſorders of the head and nerves, humoural aſthmas, and catarrhs of old people: the leaves powdered are an agreeable errhine.

MARUM

MARUM SYRIACUM. *Maſtich. D.* ℥j.

Is much of the nature of marjoram, and is thought to be of great ſervice in too great a flux of the menſes; an ℥j given in a glaſs of rough red wine.

ORIGANUM. *Wild Marjoram.*

Is of a pleaſant ſweet ſmell, and pungent taſte, warmer than the garden marjoram; reſembles thyme, and ſeems to agree with it in virtue; the *origanum criticum*, the wild *marjoram*, brought from *Crete*, has a grateful aromatic flavour, ſomewhat ſtronger than the common ſort; the firſt is ſerviceable in obſtructions of the breaſt, liver, and womb, jaundice, ſhortneſs of breath, and ſuppreſſion of the menſes; the other ſort, from *Crete* or *Candy*, is uſed in baths, in diſtempers of the head, and hyſteric caſes; and likewiſe for cutaneous irruptions.

ROS MARINUS. *Roſemary.*

Has a fragrant ſmell, warm, pungent, bitteriſh taſte, approaching to that of lavender. Aqueous liquors extract a great ſhare of its virtues by infuſion, and elevate them in diſtillation. Proof ſpirit extracts, in great perfection, the whole aromatic flavour, and elevates little by diſtillation; hence the reſinous maſs left upon abſtracting the ſpirit, proves an elegant aromatic, very rich in the particular qualities of the plant; the flowers give over greater part of their flavour, in diſtillation, with pure ſpirit; by watery liquors it is much injured. Roſemary is the principal aromatic of our growth, is uſed in moſt nervous caſes, eſpecially where there is too great a moiſture and coldneſs; good in epilepſies, apoplexies, palſies, *&c.* It abounds with a ſubtile detergent oil, which makes it univerſally diobſtruent and opening: therefore good in obſtructions of the menſes, jaundice, and gout.

Conſerva Florum Roris Marina, *Conſerve of Roſemary Flowers*, loſes greatly of the fragrance of the roſemary flowers themſelves, therefore ſome make the conſerve from the leaves, or at leaſt add a portion of theſe to the flowers. The conſerve is uſed in weakneſs of the nerves, and as a light cordial.

SALVIA. *Sage.*

Has a moderate warm aromatic ſmell, a light aſtringent bitter taſte, moderately

rately warms and ſtrengthens the veſſels; and, in cold phlegmatic habits, excites appetite, promotes the natural ſecretions, and is of good ſervice, in debilities of the nervous ſyſtem. The dried leaves may be drunk as tea; or a tincture, or extract, made with rectified ſpirits, may be taken in proper quantity. The diſtill'd water, and eſſential oil, poſſeſs only its warm aromatic quality. An aqueous infuſion of the leaves, with a little lemon juice, proves an excellent, grateful, cooling drink in fevers, and febrile diſorders; and has an auſterity upon the palate, which makes it a good gargariſm. Some give it in medicinal drinks, along with other ingredients, for ſweating and purifying the blood.

THYMUS. *Thyme.*

Has a ſweet, grateful, aromatic ſmell, warm, and ſomewhat pungent taſte. In diſtillation, with aqueous and ſpirituous liquors, it gives over its agreeable aromatic cordial quality; with water it ſends over, in diſtillation, an elegant eſſential oil. It is recommended as a good uterine, to promote the menſes; and is uſed in baths for many diſtempers of the head.

MENTHA PIPERITIS. *Pepper-mint.*

Has a penetrating ſmell, and warm, pungent, glowing taſte; good in flatulent colics, languors, and other like diſorders: it ſeems to act as ſoon as taken, and extends its effects through the whole nervous ſyſtem, inſtantly communicating a glowing heat. Water extracts its whole pungency by infuſion, and elevates it in diſtillation.

FLORES.

CARYOPHYLLA AROMATICA & RUBRA. *Cloves and Clove July Flowers.*

The firſt is brought from the *Eaſt-Indies*, have a ſtrong, agreeable, aromatic ſmell; a bitter, hot, pungent taſte. Cloves are hot and ſtimulating, and poſſeſs, in the higheſt degree, the general virtues of this claſs. An extract, made from them with water, is nauſeous, and ſomewhat ſtiptic; made with ſpirits of wine, is extremely hot and pungent. The diſtill'd oil has no great pungency; and, as it is very warm and agreeable to the nerves, enters into the compoſition of many cathartics, as a corrector.

The *clove July flowers* are met with in gardens; they are of a pleaſant aromatic ſmell, (though ſome have no ſmell) ſomewhat like the cloves; are cardiac, and alexipharmic decoctions of them, powerfully promote ſweat and urine, without greatly irritating nature, raiſe the ſpirits, and quench thirſt; good in malignant fevers.

The *Syrup*, made of them, has a pleaſant flavour, and proves a good ingredient in cordial and cephalic juleps.

Lavendula. *Lavender.*

Has an agreeable fragrant ſmell; warm, pungent, bitter taſte; and is a hot ſtimulating aromatic, grateful to the ſtomach; good in vertigos, palſies, tremors, ſuppreſſion of the menſes, and all diſorders of the head, uterus, and nerves, proceeding from a weakneſs of the ſolids, and a lentor or ſtuggiſhneſs in the fluids. It is uſed externally in fomentations, for paralytic limbs: paper dipt in the diſtilled oil, either with or without the oil of almonds, applied to the parts affected with *pediculi inquinales*, and other cutaneous inſects, deſtroys them.

A *conſerve*, made from the flowers, is kept in the ſhops, it is not ſo fragrant as the flowers themſelves; but is nevertheleſs, very agreeable; and is ſometimes exhibited as a mild cordial, and in debilities of the nervous ſyſtem.

Lilium Convallium. *Lily of the Valley.*

Has a pleaſant ſweet ſmell, is cephalic and nervine; gives over its fragrant ſmell both to water and ſpirits, and by infuſion, to expreſſed oils. The roots of the garden lily, called *lilium album*, abound with a ſoft mucilage, and are uſed in emollient and maturating cataplaſms; thoſe of the wild lily, or lily of the valley, are bitter; and prove a good errhine.

Pæonia. *Peoney.*

The roots and ſeeds have an unpleaſant ſcent, like that of narcotic plants; a glutinous ſubacrid taſte, with a light degree of bitterneſs and aſtringency; they are ſaid to be emollient, corroborating, and highly anodyne, of ſervice in ſome kinds of obſtructions, eroſions of the viſcera, heat of urine, pains in the kidneys, *&c.*

&c. are chiefly celebrated for curing ſpaſmodic complaints, and childrens convulſions.

ROSA DAMASCENA. *Damaſk Roſes.*

Has a pleaſant ſmell, and bitter ſubacrid taſte; is of a cordial, aromatic, and mildly laxative virtue. The diſtilled water and oil are uſeful and agreeable cordials to raiſe the ſpirits, recruit the ſtrength, and allay pain, without raiſing any heat in the conſtitution; but rather abate it when inordinate.

TILIA. *Lime, or Linden Tree.*

The flowers have an agreeable flavour, abate pains and ſpaſms, are antiepileptic, and good in all nervous caſes drank as tea.

SEMINA.

SINAPI. *Muſtard.* D. ℥j *to* ℥ſs.

Has an acrimonious and pungent taſte; ſtimulates the ſolids, attenuates the juices, excites appetite, promotes digeſtion, increaſes the fluid ſecretions; a good antiſcorbutic. In aſthmas, dropſies, paralytic caſes, and decays and defluctions, attending old age, and rheumatiſms, muſtard is good; as alſo externally, as a ſtimulant in numbneſs, palſies, *&c.*

The *thlaſpi*, *treacle*, or *mithridate muſtard*, agrees in its medicinal qualities, with the common muſtard; its principal uſe is in the *venice treacle*, which has its name from it. It yields its acrimony in diſtillation with water.

All acrid medicines, as horſe-radiſh, ſcurvey-graſs, arum, *&c.* ſtimulate the veſſels, and diſſolve tenacious juices, in cold, aqueous, phlegmatic habits, ſtagnations of the fluids, and, where the contractile force of the ſolids is weak, they prove powerful expectorants, diobſtruents, diuretics, and emmenagogues; and if the patient is kept warm, they are ſudorifics; highly prejudicial in hot, bilious, inflammatory, and plethoric caſes, where there is already a degree of irritation, where the juices are too thin and acrimonious, or the vicera unſound.

Crocus. *Saffron.*

Has a ſtrong acrid diffuſive ſmell, is an elegant and uſeful aromatic, and one of the greateſt cordials of any ſimple the *materia medica* affords; it remarkably exhilarates and raiſes the ſpirits; given in too large a doſe, it cauſes immoderate mirth and involuntary laughter, and all the bad effects which follow from the abuſe of ſpirituous liquors; it is particularly ſerviceable in hyſteric depreſſions, proceeding from a cold cauſe, or obſtruction of the uterine ſecretions, where other aromatics, even of the moſt generous kind, have had little effect; aſſiſts the irruption of the ſmall-pox, promotes expectoration, cleanſes the womb, forwards delivery, and promotes the menſes; good in jaundice, cachexies, and all diſorders from obſtructions, and foul viſcera; and is a good alexipharmic. Saffron imparts its whole virtues and colour, which is a deep yellow, to rectified ſpirit, proof ſpirit, wine, vinegar, and water; though the tinctures, procured by pure ſpirit, keep longeſt in perfection.

FRUCTUS.

Kermes. *Kermes.*

Is a round grain, about the ſize of a pea, the nidus of an animalcule. It is of a pleaſant ſmell, red colour, and bitter, rough, pungent taſte; is a grateful, mild, reſtringent, corroborant, and cordial; exhilarates the ſpirits; good in palpitations of the heart; promotes birth, and prevents abortion: ſome ſay it aſſiſts in bringing out the ſmall-pox, and meaſles.

Cerasus. *Cherries.*

Fruits, eſpecially of the acid ſort, are uſeful and agreeable coolers, and quenchers of thirſt; good in hot, bilious, or febrile diſeaſes; uſeful aperients in chronic caſes; all obſtructions of the viſcera yield to their continued uſe, as alſo the moſt viſcid juices are attenuated by the long uſe of them. Cherries are good in the diſeaſes of the head and nerves; and are juſtly reckoned a wholeſome fruit; grateful to the ſtomach, and ſomewhat diuretic.

There was a water diſtilled from the black cherries, previouſly bruiſed, ſo that the ſtones may be broken; it is very grateful, and was often made uſe of by

by nurſes, againſt the convulſive diſorders that children are ſubject to; but by the trial, made both by the committee of the *London* college, and other phyſicians, it was found to contain poiſonous qualities; and, upon that account, the *London* college has laid it aſide. The kernels reſemble opium, and ſome other things, which poiſon only when taken in too large quantities. Therefore the water may ſtill be found uſeful in proper quantities.

If there is a ſmall quantity of water added, it is then called *black cherry water*; but if no water is added, before diſtillation, then it is called the ſpirit of *black cherries*.

Coffee. *Coffee.*

Aſſiſts digeſtion, is good in diſorders of the head, from fumes and too great moiſture upon the breaſt; which it abſorbs, by its drying quality, and thereby prevents, or removes a diſpoſition to ſleep; promotes the natural ſecretions, and braces and dries the nerves. Therefore it is good in cold moiſt conſtitutions; and hurtful in hot, bilious, dry habits; and brings on a tremor and watching.

Cubebæ. *Cubebs.*

Are ſmall grains, brought from the *Eaſt-Indies*, of an aromatic warmth and pungency, grateful to the nerves, and ſtimulating: they poſſeſs the virtues of pepper, but in an inferior degree.

Nux Moschata. *Nutmeg.* D. gr. 4 *to* ℈i.

Has an aſtringent virtue, good in diarrhæas: the aſtringent quality is increaſed, and the aromatic leſſened, by torrifaction; which, indeed, is neceſſary to render nutmegs pulverable; for, in their natural ſtate, they are ſo ſoft and unctuous, as ſcarce to be reduceable to powder, in which they are occaſionally wanted.

They comfort the head and ſtomach, and are hot, cordial, and carminative; diſtilled with water they afford a large quantity of eſſential oil, poſſeſſing the flavour of the nutmeg; the decoction inſpiſſated, gives an extract of an unctuous taſte, lightly bitteriſh, without any ſenſible aſtringency. Rectified ſpirit extracts its whole virtues by infuſion, and elevates very little of it by diſtillation: it yields a lim-

a limpid yellow oil to the preſs; which, in cooling, concretes into a ſebaceous conſiſtence.

Piper. *Pepper.*

Has a pungent ſmell, and very hot biting taſte. The *long* is hotteſt, the *black* moſt grateful, and the *white* the weakeſt. The pungency reſides chiefly in its reſinous part; and its aromatic odour in its eſſential oil.

The diſtilled oil ſmells ſtrongly of the pepper, but has very little acrimony. Tincture, made with rectified ſpirit, is extremely hot and fiery. In cathartics it is a uſeful corrector, and often uſed as a ſuccedaneum to the moſt coſtly ſpices.

The oil, drawn from *Pimento*, or *Jamaica* pepper, is a cheap ſubſtitute to oils, obtained from ſome of the deareſt ſpices. The flavour of this oil is more agreeable than that of cloves; and falls very little ſhort of that of nutmegs.

BALSAMA.

Peruvianum. *Peru. Gut. 15 to 50.*

Is of the conſiſtence of honey, of a reddiſh-brown colour, inclining to black, of an agreeable aromatic flavour, and a very hot biting taſte; it yields a ſmall quantity of fragrant eſſential oil, is warm, hotter, and more acrid, than copaiba; warms the habit, ſtrengthens the nerves, promotes the circulation, ſtrengthens, diſcuſſes, and attenuates the juices; good in obſtructions of the viſcera, aſthma, jaundice, phthiſic, nephritic pains, obſtructions of the menſes, gonorrhæas, dyſentery, weakneſs of the ſtomach, and other diſorders, proceeding from a debility of the ſolids, or ſluggiſhneſs and inactivity of the juices; uſed externally to cleanſe and heal wounds and ulcers; and ſometimes in palſies, and rheumatic pains; it unites with water, milk, expreſſed oils, animal fat, or wax; alkaline lixivia diſſolve great part, and rectified ſpirit the whole of it.

Labdanum. *Ditto.*

Is a reſinous ſubſtance, brought from abroad, of a dark and almoſt black colour,

lour, of the conſiſtence of ſoft plaſter; has a very agreeable ſmell, and light, pungent, bitter taſte; rectified ſpirit of wine almoſt entirely diſſolves it; it warms, dries, and deterges, but is moſtly uſed outwardly; enters many of the plaſters that are warm, emollient, and deterſive, as the ſtomach, and cephalic plaſters, *&c.*

LIGNA.

Agallochum seu Lignum Aloes. *Aloes Wood.*

Is a tree in the *Eaſt-Indies*, and is brought over in little hard ponderous pieces, of a yellow-brown colour, with blackiſh, purple veins, has a fragrant ſmell, and bitter aromatic taſte; diſtilled with water, yields a ſmall quantity of very fragrant eſſential oil; digeſted in rectified ſpirit, gives an elegant tincture, which loſes nothing by being evaporated to the conſiſtence of an extract; is an excellent cordial, ſtrengthens the head, ſtomach, and nerves; the tincture, with an addition of ſteel, makes a moſt uſeful corroborant; it is, at preſent, little known in the ſhops, and rarely to be met with when wrote for; but it deſerves to be much more taken notice of.

Lignum Rhodium seu Aspalathus. *Roſe-wood.*

Is a wood, or root, brought from the *Canary Iſlands*, in long, crooked, knotty pieces, of a yellow colour, like box, with a reddiſh caſt; of a light, bitter, aſtringent taſte, and very fragrant ſmell; diſtilled with water, yields a ſmall quantity of a very fragrant, odoriferous, eſſential oil; the tincture of it in rectified ſpirit of wine, proves a very ſerviceable and uſeful cordial.

CORTICES.

Macis. *Mace.* D. gr. 12 to ʒj.

Is one of the coverings of the nutmeg, and agrees with it in virtue, mace only is leſs aſtringent; yields to the preſs a fluid oil; and, in diſtillation, a more volatile oil than nutmegs. Though what goes by the name of oil of mace, is nothing elſe but oil of nutmegs. It is uſed in cordial compoſitions, and in cathartics, as a corrector.

Win-

WINTERANUS CORTEX SEU CANELLA ALBA. *Winter's Bark.*

Is the produce of a tree in *Jamaica*; of a warm pungent taſte; ſubtile, penetrating, and grateful flavour; attenuates vicidities and groſs concretions, that obſtruct and corrode the capillary and ſmall veſſels: therefore good in nervous and ſcorbutic caſes. In the latter caſes, it is often uſed as an ingredient in diet drink.

RADICES.

ACORUS SEU CALAMUS AROMATICUS. *Acorus, or ſweet-ſcented Flag.*

Brought from the *Levant*, *&c.* The root is full of joints, of a white colour, and looſe ſpongy texture, has a ſtrong ſmell, warm, acrid, bitter, aromatic taſte; is carminative and ſtomachic, good in cholics, and all complaints from indigeſtion, and a cold, weak ſtomach.

The *gladiolus luteus*, yellow water flag, baſtard acorus, or water flower-de-luce. The root has a very acrid taſte, and, when freſh, is a ſtrong cathartic. The expreſſed juice, in doſes of eight drops every hour or two, and occaſionally increaſed, occaſions a plentiful evacuation after jalap, gamboge, *&c.* have proved ineffectual; by drying, it loſes great part of its pungency and purgative virtue.

GALANGA. *Galangal.*

Is brought from *China*, in pieces about an inch long, and not ſo thick, full of joints; has an aromatic ſmell, bitter, biting, and hotter taſte than acorus; is a warm ſtomachic bitter; good in flatulencies, and indigeſtions, braces the nerves; often found in bitter infuſions; though infuſions, ſpirituous tinctures, and extracts of it, are all ſomewhat nauſeous.

ZEDOARIA. *Zedoary.* D. gr. 10 to ʒſs.

Is brought from the *Indies*, in oblong pieces, about the thickneſs of one's finger, and has an agreeable ſmell, and warm, bitter, aromatic taſte: rectified ſpirit extracts its whole warmth, and aromatic flavour: proof ſpirit extracts the whole vir-

virtues; watery infuſions take up its bitter part; diſtilled with water, it gives over an eſſential oil, poſſeſſing its ſmell and flavour; the ſpirit brings over ſome ſmall ſhare of its flavour; and the ſpiritous extract is more grateful than the zedoary itſelf. Some find ſervice from it in cholics and hyſterics.

ZINGIBER. *Ginger.* D. gr. 5 to 15.

Brought from the *Indies*, *&c.* Has a fragrant ſmell, hot, biting, aromatic taſte, good in cold flatulent cholics, laxity, and debility of the inteſtines, warms the ſtomach and nerves. Rectified ſpirit extracts its virtue by infuſion, and elevates its flavour in diſtillation, much better than aqueous liquors do.

ANIMALIA.

MOSCHUS. *Muſk.* D. ℈j.

Is like clotted blood, brought from the *Indies*, *China*, *&c.* of the ſize of a pidgeon's egg; is dry, with a kind of unctuous touch, dark-red brown, reſembling a black colour, has a ſtrong fragrant ſmell, a bitter ſubacrid taſte. Spirit of wine diſſolves ten parts out of thirty, and water twelve. Water elevates its ſmell in diſtillation, though pure ſpirit brings over nothing; it is a medicine of very great ſervice in convulſive diſeaſes; cures the bite of a mad dog, all ſtarting of the muſcles, a *ſubſultus tendinum*, anxieties, want of ſleep, convulſive hiccoughs, eaſes pain, raiſes the ſpirits, is good in hyſteric fits, and a certain diaphoretic, without heating, or giving the leaſt uneaſineſs; when it cannot be given by the mouth, as ſometimes happens in convulſive caſes; it proves of great ſervice, adminiſtered in glyſters.

MINERALIA.

AMBRAGRISEA. *Ambergreaſe.* D. gr. 4 to 10.

Is a bituminous ſubſtance; of a greyiſh aſh colour, intermixed with yellow and blackiſh ſpecks and veins found in little opake rugged maſſes, of a very light looſe texture, freeable, in ſome degree, like wax. It is found floating on the ſea, and in great plenty in the *Indian* ocean, melts with a ſmall degree of heat, into the appearance of oil, and in a ſtronger, is almoſt totally volatile, has a

very fragrant ſmell: it totally diſſolves in ſpirits of wine, and eſſential oils, but not in expreſſed oils, nor water; is a moſt agreeable perfume, without any of thoſe inconveniencies, that frequently attend perfumes; is a high cordial and cephalic, and a good corroborant of the nervous ſyſtem; is uſed in the ſame intentions as muſk, but is ſomewhat weaker.

SUCCINUM. *Amber.* D. gr. 5. to ℈ı.

Is a ſolid brittle bituminous ſubſtance, dug out of the earth, and found on the ſea ſhore of *Poliſh Pruſſia*; is of a white, yellow, or brown colour, ſometimes opake, ſometimes clear and tranſparent, has little ſmell or taſte; boiled in water it undergoes no change, yields a bitter aromatic taſte, and fragrant ſmell, to ſpirit of wine, is of great ſervice in the *fluor albus*, gleets, hyſteric affections, *&c.* and is of wonderful efficacy in all diſtempers, from weakneſs and relaxation, and hypochondriacal, hyſterical, and cold languid caſes. If the tincture is inſpiſſated to the conſiſtence of an extract, it is an excellent balſam, good in gonorrhæas, bloody-flux, ſpitting of blood, hemorrhoids, and immoderate diſcharge of the menſes. It is probably the oil of ſome bitumen, raiſed by the heat of the earth.

The balſam of amber of *Bates*, is white amber, in fine powder, ℥ij, oil of turpentine ℥6, digeſted in a warm place, 'till incorporated.

'Tis very good in vertigos, epilepſies, palſies, and all hyſteric caſes; alſo a good vulnerary and detergent, in diſtempers of the breaſt, and urinary paſſages; which it wonderfully cleanſes of gravel, and other obſtructions; and will deterge and heal even a gonorrhæa itſelf. It may be taken on ſugar, or in any proper vehicle, from gut. 5 to 15.

CINNABARIS NATIVA. *Native Cinnabar.*

Is a ponderous mineral, found in *Spain*, *&c.* of a red colour, compoſed of mercury and ſulphur. The quantity of mercury is ſix times greater than that of ſulphur: by its ſubtilty, it paſſes through the minute ramifications, and, by its momentum, breaks the ſmalleſt obſtructions in the fineſt fibres: therefore of wonderful uſe in all nervous caſes, epilepſies, *&c.* good in the itch, leproſy, and all cutaneous foulneſſes, deſtroys worms; and may be given in conſiderable doſes,

doſes, without ruffling the conſtitution. Mercury is ſeparated from the ſulphur by ſubliming cinnabar, with an equal quantity of calcined tartar of pot-aſhes, and twice the quantity of *calx viva*, ground together; in ſublimation the mercury comes over; which is to be waſhed from its filth, and ſtrained through a clean napkin. Mercury, thus revived, called *mercurius reſuſcitatus*. *Mercury, revived from cinnabar*, is the pureſt of any, and preferable to any ſpirit, for many purpoſes.

Aurum. *Gold.*

Is found in mines, in ſeveral parts of *Europe*, *&c.* and the grains of gold are found in the ſand of the rivers, of many countries; it unites with mercury, is the moſt ponderous, perfect, compact, and malleable, of all metals; it abides fixed and unmelted, for a conſiderable time, in the ſtrongeſt fires; and is not acted upon by alkaline, or any ſimple acid, or menſtruum; and no method has been yet fallen upon, to ſeparate its component parts: all the tinctures of it, and aurum potabiles, which have yet appeared, are only ſolutions of it in *aqua regis*, diluted with ſpirit of wine, or other liquors, and prove rather injurious to the body than beneficial; it diſſolves in *aqua regalis* alone, into a yellow tranſparent fluid, which ſtains the ſkin, *&c.* purple. The aetherial ſpirit of wine, and ſome eſſential oils, take up the gold from it; alkalines precipitate the metal in form of a yellow mud; which exſiccated and expoſed to a ſmall heat, violently explodes. As to the medicinal virtues of this metal, experience has ſufficiently ſhewn, that it is not poſſeſſed of any valuable ones; though the *Arabians* formerly eſteemed it as a great cordial. In its metalic form, however, finely comminuted, it proves inactive; when ſatiated in acid, corroſive; and in the intermediate ſtates, either inſignificant, or unſafe.

The Aurum Fulminans, the Fulminating Gold, is the only preparation of this metal, retained in diſpenſatories; and, if it were not for the phœnomenon it exhibits in exploding with an incredible force, when expoſed to a moderate heat, it would, moſt probably, have been loſt. Its reputed virtues were to excite a perſpiration, ſtop vomiting, and check a ſaliv ation. Its more certain effect, however, is to operate downward; and that not with ſafety. The beſt place is to have it in the pocket, and not in the belly. It is prepared, by diſſolving gold in four times its weight of *Aqua Regia*; then drop into the ſolution oil of tartar, *per diliquium*, till the efferveſcence ceaſes; pour off the liquor, waſh the precipi-

tate matter with freſh parcels of water, and afterwards exſiccate it for uſe. The doſe uſed to be from gr. 1 to 6.

Spiritus Vinosus Rectificatus. *Rectified Spirit of Wine.*

Is diſtilled from *French* brandy, and from the courſer inflammable ſpirits, when properly treated; has a hot pungent taſte, without any particular flavour, and is the lighteſt of almoſt all known liquors; expreſſed oils, which ſwim upon the water, ſink to the bottom in rectified ſpirit of wine. Urinous ſpirits are uſeful menſtrua for other medicines. Proof ſpirit coagulates all the fluids of the body, except urine, and hardens the ſolid parts; applied externally, it ſtrengthens the veſſels, thickens the juices in them, and thus powerfully reſtrains hæmorrhages; it inſtantly contracts the extremities of the nerves it touches, and deprives them of ſenſe and motion, and, by this means, eaſes them of pain; but, at the ſame time, deſtroys their uſe. Hence, employing ſpirituous liquors, in inflammations, may ſometimes be attended with unhappy conſequences. Theſe liquors, received undiluted into the ſtomach, produce the ſame effects, thicken the fluids, and contract all the ſolid parts which they touch; and deſtroy, at leaſt for a time, their uſe and office; if the quantity is conſiderable, a palſy, or apoplexy follows, which ends in death. Taken in a ſmall quantity, and duly diluted, they brace up the fibres, raiſe the ſpirits, promote agility; if farther continued, the ſenſes are diſordered, voluntary motion deſtroyed; and, at length, the ſame inconveniencies brought on as before. Vinous ſpirits, therefore, in ſmall doſes, and properly diluted, may be applied to uſeful purpoſes, while in larger quantities, or if their uſe is long continued, they act as poiſon of a particular kind. The external uſe of *Sp. Vin. Rect.* is very extenſive: it is often uſed in diſcutient fomentations, to forward, by its warmth, the diſlodgment of obſtructed humours, and is ſaid to be good in cramps, or convulſive contractions of the fingers, or toes, in embrocations, and in paralytic coldneſs, and numbneſs in any part; external pains in the fingers, wriſts, knees, feet, *&c.* corns and callous ſubſtances, growing round the heels, are often cured by rubbing with it. Alſo ſwelling of the legs, feet, and other parts, which, for a while, retain the impreſſion of the fingers, are greatly relieved by it; the falling off of ſcabs, that ſtrongly adhere to any part; and the ſeparation of eſcars are very much haſtened by wetting them, and the adjacent parts; alſo ulcers, eſpecially the ſmall ulcers upon the tongue, called *aphthæ*; and others, on the internal ſurfaces of the cheeks,

cheeks, or lips, tumours of the gums, called *gum boils*, and ulcers on the legs, are prevented from mortifying, by frequently wetting the adjacent parts with it. In gangrenes, or mortifications, the application of it, with warm vinegar, hinders the progreſs; it is good in excoriation, or fretting of the ſkin; and in fluxes of humours upon the eyes, rub the eye-brows, temples, and under the eyes; it alſo eaſeth the piles, eſpecially if they bleed too much.

The Spiritus Vinoſus Tenuior, *Proof Spirit*, is the ſame ſpirit, with an admixture of water; by mixing one hundred parts by weight, of pure ſpirit, with eighty-ſix of water, you obtain proof ſpirit.

If you digeſt rectified ſpirit, with one-fourth of its quantity of ſalt of tartar, and diſtil it with a gentle heat, you have *alcohol*, or *ſpiritus vini tartarizatus*, *tartarized* ſpirit of wine. By this operation, the ſpirit of wine obtains a more agreeable ſcent and taſte than before: it is alſo more ſubtile and penetrating, and is good in gout, rheumatiſm, ſcurvy, dropſy, jaundice, colic, green ſickneſs, and calcalous caſes. Doſe from gut. 50 to ʒ2, in wine and water.

PRÆPARATA.

PRÆPARATA.

OLEA.

L. E. Spiritus, Sal, et Oleum Succini. *Spirit, Salt, and Oil of Amber.* D. gr. 10. to 3j.

Amber, by diſtillation, ſends over a ſpirit, oil and ſalt; the ſalt and ſpirit are ſeparated by boiling: and the oil, diſtilled again by itſelf, is divided into a thinner oil, which ariſes, and a thicker part which remains behind, called, *balſam* of *amber*. The *ſal ſuccini rectificatus*, rectified ſalt of amber, is the ſalt procured by this proceſs, and ſublimed with twice the quantity of decrepitated ſea ſalt.

The pure ſalt of amber has a penetrating, grateful, acid taſte; is aperient, diuretic, anti-hyſteric, cephalic, and detergent; good in the convulſive deliriums of fevers, and conduces much, with alexipharmics, to procure a diapharesis; is ſerviceable alſo in all chronic caſes, as epilepſies, palſies, and ſuch like; it quickens the operation of cathartics, eſpecially the aloetic and reſinous kind; a few grains of it, with any of the milder official pills, as *pil. ruffi*, &c. will make them briſker, by much, in their operation, and milder too. It is beſt given in bolus, pills, or electuary, from gr. 3 to 15.

The rectified oil has a ſtrong bituminous ſmell, and pungent acrid taſte; given from gut. 10 to 12, it heats and ſtimulates the body, and promotes all the fluid ſecretions; is chiefly celebrated in hyſteric caſes, in deficiency of the uterine purgations; and may be joined with *ſpirit* of *ſal armoniac*, or *ſpirit* of *lavender*.

The thicker oil is uſed externally, in fixed rheumatic pains and aches, and rubbed upon paralytic limbs; ſometimes it is uſed internally, in old gleets. The ſpirit is uſed to much the ſame purpoſes, both internally and externally, from gut. 10 to 3j, in any convenient vehicle.

The

The *poteſtates ſuccini*, powers of amber, made by grinding together the oil of amber, and half the quantity of *volatile ſal armoniac*, and then digeſting them with eight times their quantity of *tartarized ſpirit of wine.*

This has the virtues of the oil, and is fitter for internal uſe; becauſe it mixes better with any vehicle for the convenience of taking. The doſe is from gut. 10 to 40.

L. E. Oleum Caryophyllorum Aromaticorum Essentiale. *Eſſential Oil of Cloves.* D. gut. 1 to 10.

The genuine oil of gloves is one of the milder oils; and, when duly diluted, may be taken to the quantity of gut. 8 or 10. It is limpid and colourleſs; of a pleaſant, moderately warm, pungent taſte; and of a very agreeable ſmell, reſembling that of cloves. But what is brought from *Holland*, under the name of oil of cloves, is exceſſively hot and fiery, and of a yellow colour; upon examination, it is found to be adulterated with a large quantity of expreſſed oil, and a ſmall proportion of the reſinous extract of cloves, which our good friends, the *Dutch*, have ſkill enough to add; but it is not the firſt impoſition we have had from that quarter. This extract communicates to a large quantity of the oil a deep colour, and great degree of acrimony. One drop of this oil is a ſufficient doſe.

L. E. Oleum Foliorum Lavendulæ Essentiale. *Eſſential Oil of Lavender Flowers.* D. gut. 1 to 6.

The oil of lavender flowers, when in perfection, is limpid; of a pleaſant yellow colour, and extremely fragrant. It poſſeſſes much of the ſcent and virtues of the plant; is of great uſe, both externally and internally, in paralytic and lethargic caſes; rheumatic pains, and debilities of the nervous ſyſtem.

E. Oleum Macis Stillatitium. *Eſſential Oil of Mace.* gut. 1 to 4.

The oil of mace is moderately pungent; very ſubtile and volatile; has a ſtrong aromatic ſmell, like the ſpice itſelf; is thin and limpid; has a pale yellow colour: the bottom part is thicker and darker. It is good in vomiting, hiccoughs, cholic pains, *&c.* internally; and externally applied to the ſtomach, or umbilical region: but is now little made uſe of, and ſeldom found in the ſhops.

L. E.

L. E. Oleum Majoranæ Essentiale. *Essential Oil of Marjoram Leaves.* D. gut. 1 to 2.

The essential oil of marjoram is very hot and penetrating, has not so agreeable a flavour as marjoram itself; is of a pale yellow colour, which, either by long keeping, or, by using too great a fire in distillation, turns reddish. It is good in obstructions, and mucous discharges of the uterus, from a cold cause.

L. Oleum Minthæ Peperitidis Essentiale. *Essential Oil of the Leaves of Pepper Mint.* D. gut. 1 to 12.

Oil of pepper mint possesses the smell, taste and virtues of the pepper mint, in perfection; is of a pale greenish yellow colour; and has great pungency and subtilty; it diffuses, almost as soon as taken, a glowing warmth through the whole system; is of excellent service in colics, accompanied with great coldness, and in some hysteric complaints.

L. E. Oleum Nucis Moschatæ Essentiale. *Essential Oil of Nutmegs.* D. gut. 1 to 4.

The oil of nutmegs possesses the flavour and aromatic virtues of the nutmeg, is similar to the oil of mace, but somewhat less grateful to the stomach.

L. E. Oleum Origani Essentiale. *Essential Oil of Origanum.* D. gut. 1 or 2.

The oil of origanum is extremely hot; has a very acrimonious, pungent taste, and penetrating smell; is chiefly used externally, for easing pains of the teeth, and as an errhine; it is used also in sprains, especially amongst farriers.

L. E. Oleum Roris Marini Essentiale. *Essential Oil of Rosemary-Leaves.* D. gut. 1 to 4.

When in perfection, the oil of rosemary is very light, thin, pale, and almost colourless, of great fragrance, though not quite so agreeable as the rosemary itself; good in nervous and hysteric complaints; and is much esteemed in epilepsies, and suppressions of the uterine purgations, occasioned by weakness and inactivity.

L. Oleum

L. Oleum Ligni Rhodii Essentiale. *Essential Oil of Rhodium Wood.*

The oil of rhodium is extremely odoriferous, and is one of the moſt delicate perfumes; for which purpoſe it is put into pomatum, *&c.* Cuſtom has not, as yet, brought it into internal uſe.

AQUÆ.

L. Aqua Piperis Jamaicensis. *Water of Jamaica Pepper.*

This water is diſtilled from *Jamaica* pepper; proves very elegant; and may be uſed as a ſuccedaneum to the more coſtly ſpice waters. It is pretty much uſed.

L. E. Aqua Rosarum Damascenarum. *Damaſk Roſe-Water.*

This water is diſtilled from freſh gathered damaſk roſes. It is principally valued, on account of its fine flavour, which approaches to that generally admired in the roſe itſelf. The purgative virtue of the roſe remains entire, in the liquor left in the ſtill; which is very proper to make the *ſolutive honey and ſyrup.*

L. Aqua Nucis Moschatæ. *Nutmeg Water.* D. ʒj to ℥j.

This water is diſtilled from ℥ij of nutmegs, and one gallon of proof ſpirit, with water to prevent its burning.

This water, with the addition of haw-thorn flowers, was formerly celebrated in nephritic diſorders, under the name of *aqua nephritica:* there is another water that goes under this name, which we have mentioned under *diuretics.*

The nutmeg water, at preſent, is only regarded, as an agreeable ſpirituous liquor, highly impregnated with the flavour of the nutmeg. It differs little from *aqua imperialis*, imperial water, or *aqua cœleſtis*, formerly kept in the ſhops, or *aqua vitæ*, otherwiſe called *elixir vitæ:* they are all pleaſant, cordial drams, and good, upon any ſudden ſickneſs of the ſtomach.

E. Aqua Aromatica, *vulgo* Aqua Mirabilis.

This water is diſtilled from ℥ij of cinnamon, ℥i of lemon-peel, ℥ſs of mace, ℥j of angelica ſeeds, ℥ſs of cardamom ſeeds, ʒij of cubebs, ℥vj of balm-leaves; bruiſed and digeſted, for four days, in one gallon of *French* brandy; from which one gallon is drawn off by diſtillation.

This water is rich of the ſpices, and proves a pleaſant warm cordial and carminative, gives preſent relief in languors, flatulencies, cholicy pains, *&c.*

There are however, ſeveral uſeleſs ingredients, as angelica, mace, cubebs, and balm; ſome have ſubſtituted *Jamaica* pepper to them all, in the proportion of ℥ij to one gallon of ſpirit.

There is a water, called *aqua cephalica*, or *aqua carbunculi*, much like the aqua mirabilis; it is diſtilled from ℥j of nutmegs, of galangal, calamus aromaticus, *aa* ℥j, of mace, cloves, cinnamon *aa* ℥j, of leaves of marjoram, ſage *aa* one handful, flowers of lavender half a handful, of muſk gr. v; infuſed in one gallon of rheniſh wine, and lb.iv. of roſe water, for ſome time before diſtillation.

It is an admirable cordial, and carminative water, raiſes the ſpirits, ſtrengthens the nerves, *&c.*

SPIRITUS.

L. Spiritus Rorismarinæ. *Spirit of Roſemary*, E. Aqua Reginæ Hungariæ. *Hungary Water*. D. gut. 20 *to* 40.

This ſpirit is diſtilled from roſemary tops, freſh gathered, with proof ſpirit.

The *Edinburgh* college, direct their *Hungary* water to be diſtilled from roſemary flowers, juſt gathered, with rectified ſpirit of wine.

It is very frequent, inſomuch, as to be in common uſe, as a perfume. In ſome pharmacopœas, to four pounds of roſemary, half a pound of ſage, and two ounces of ginger, are added. It is ſometimes taken internally, as a cordial.

L. Spiritus

L. Spiritus Lavendulæ Simplex. *Simple Spirit of Lavender.* gut. 10 *to* 100.

This is diſtilled from freſh gathered lavender flowers, with proof ſpirit. It is very grateful and fragrant; and is often rubbed upon the temples, &c. under the notion of refreſhing, and comforting the nerves; it is likewiſe taken internally, as a cordial, to the quantity of a tea-ſpoon full, or ſo.

L. E. Spiritus Lavendulæ Compositus. *Compound Spirit of Lavender.* D. gut. 10 *to* 40.

Is obtain'd of ſimple ſpirit of lavender, lb.3 *m.* ſpirit of roſemary, lb.1 *m.* cinnamon and nutmegs, *aa* ℥ſs. red ſaunders, ʒiij; digeſted together, and the ſpirit ſtrained out for uſe. The *Edinburgh* college, takes of the diſtilled oils of lavender, ℥iſs, roſemary, ℥i. marjaram, ʒvi. lemon-peal, ℥ſs. nutmegs ʒjii. cloves, ʒji. cinnamon, ʒj; and drop theſe oils into three gallons of *French* brandy; having occaſionally ſtirred them together, one half of the mixture is reſerved for making the *ſal volatile oleoſum*; the other half is diſtilled in B. M. to two thirds; in the ſpirit that comes over, of red ſaunders, ℥j. of *Engliſh* ſaffron, cochineal, *aa* ʒji. are ſuſpended, tied in a linen cloth; to which, if the ſpirit is deſired to be perfumed, a ſcruple of ambergris, and half a ſcruple of muſk, are added.

In the former *London* pharmacopœa, there were many more ingredients made uſe of.

This ſpirit, prepared either way, is a grateful reviving cordial. The firſt, though conſiderably the moſt ſimple, is not inferior to the other in elegance.

This medicine has been long held in great eſteem, under the name of *palſy drops*; it is good in all kinds of languors, weakneſs of the nervers, decays of age, convulſive, and apoplectic ſhocks; ſuch as bring on palſies, and loſs of memory; it may be conveniently taken upon ſugar.

L. Spiritus Volatilis Aromaticus. E. Spiritus Salilus Aromaticus, (*vulgo dict.* Sal. Volatile Oleosum) L. E. *Volatile Saline Aromatic Spirit (commonly called Sal Volatile Oleosum.)* D. gut. 6 *to* 60.

Is made of eſſence of lemons, and eſſential oil of nutmegs, *aa* ʒij, eſſential oil of cloves, ʒſs, diſtilled with one quart of dulcified ſpirit of ſal ammoniac.

The *Edinburgh* college, directs it to be diſtilled from three gallons of *French* brandy, of the eſſential oils of roſemary ℥i, marjoram ʒvj, lavender ℥iſs, lemon-peel ℥ſs, nutmegs ʒiij, cloves ʒij, cinnamon ʒj; one half of this mixture is reſerved for making the *compound ſpirit of lavender*; to the other half eight ounces of volatile ſalt of ſal ammoniac are added, and the whole diſtilled in B. M. till two thirds come over.

Volatile ſalts, thus united with aromatics, are not only more agreeable in flavour, but more acceptable to the ſtomach, and leſs acrimonious than in their pure ſtate.

Both the foreging compoſitions are noble cephalics, and cardiacs, given in wine, or any common vehicle; they may be much varied, according to the humour of the maker; whoever pleaſes, may omit any of theſe aromatics, or put others in their room, if it better ſuits any particular intention. It is very eaſy to impregnate it with ſteel, as *regulus martis*, which is the moſt delicate way of giving that mineral to nice conſtitutions. Medicines of this kind, may be prepared extemporaneouſly, by dropping any proper eſſential oil, into the dulcified ſpirit of ſal ammoniac; whereby you may have a *ſal volatile*, of any particular flavour, and adapted to any particular purpoſes, at any time; in fainting, coolneſs, *&c.* the oil of cinnamon, joined to the volatile ſpirit, proves a moſt immediate cordial: in ſuppreſſion of the uterine purgations, the oil of rue, or ſavin, effectually promote the diſcharge.

Spiritus et Extractum Croci. *Spirit and Extract of Saffron.* D. ʒj *to* ℥j.

Is made of ſaffron ℥iv, digeſted in a gentle heat, for two or three days, with lb.iv. of rectified ſpirit of wine, then the tincture being drawn off, to the reſiduum, lb. ii. p. more are added, which is digeſted and diſtilled as before. Both tinctures,

tinctures, being mixed, are digeſted in B. M. until the reſiduum appears of the conſiſtence of oil.

Some will have this ſpirit to be one of the greateſt cordials which medicine can produce; undoubtedly it is a ſerviceable one, and is at the ſame time a noble alexipharmic, and diſpoſes the patient to ſweat, if duly continued.

Boerhaave ſays, that the extract, or thick oily liquid remaining, after the diſtillation of the ſpirit, poſſeſſes ſuch exhilerating virtues, that, if uſed a little too freely, will occaſion almoſt perpetual laughing: it tinges the urine red, and mingles with water, ſpirit, and oil; but is moſt conveniently taken in canary, or in bolus or pills, from gr. 6 to ℈ 1; for it is vaſtly ſtronger of the virtues of the ſaffron, than the diſtilled ſpirit.

ESSENTIA AMBRÆ. *Eſſence of Ambergris.* D. gut. 1 to 10.

Is made of ambergris ʒij, muſk gr. 12, civet gr. 2, digeſted in a ſmall heat, with four ounces of rectified ſpirit of wine; the heat is gradually increaſed, till it boils; and, having continued boiling ſome time, when cold, is decanted for uſe.

This makes the beſt of perfumes, and in conſtitutions where ſuch ſweets are not offenſive to the head, is a moſt immediate cordial. This differs little from *tinctura odorifera.*

SPIRITUS ALKERMES. *Spirit of Alkermes.*

This ſpirit is prepared of cinnamon, citrons, black cherrys, roſemary *aa* ʒiiij, juice of kermes ʒij, of ſugar ʒij, mixed altogether; and, having ſtood to ſettle, is decanted and filtrated for uſe.

It is a very grateful cordial, and good in all intentions, where the ſpirits are to be rouſed, and the nerves ſtrengthened. It is alſo ſaid to aſſiſt delivery, and may be taken at diſcretion.

TINC-

TINCTURÆ.

E. Tinctura Cephalica. *Cephalic Tincture.*

This tincture is prepared of wild valerian root, roſemary flowers *aa* ℥4, digeſted four days in lb.6 of *French* white wine, and then filtrated for uſe. The college directs a few more ingredients, *viz.* peony roots, white dittany, miſletoe of the oak, and peacock dung; which are mere expletives, and both ridiculous and inſignificant.

L. Tinctura Aromatica. *Aromatic Tincture.* D. gut. 20 to ʒij.

This tincture is prepared of cinnamon ʒ6, leſſer cardamum ſeeds freed from the huſks ʒiij, long pepper and ginger *aa* ʒij, digeſted without heat in lb. 2 *m.* of proof ſpirit, and then ſtrained off for uſe. This is a very warm aromatic; good in languors, weakneſs of the ſtomach, flatulencies, *&c.* It is too hot to be given without dilution.

E. Tinctura Croci. *Tincture of Saffron.* D. ʒj to ʒ.

This tincture is prepared of *Engliſh* ſaffron ℥j, digeſted for three days in lb.1 of *French* brandy, and then ſtrained for uſe.

This is ſimilar in virtue to the *ſaffron wine*; but is preferable to the wine in the elegance of its colour, and its fitneſs for keeping. Some employ treacle-water as a menſtruum for ſaffron, with a view to promote its efficacy, as an alexipharmic; but the acid in that compound water ſoon deſtroys the colour of the tincture. It is a good cordial, and alexipharmic.

L. Vinum Croceum. *Saffron Wine.* D. ʒj to ℥ſs.

This wine is prepared of ſaffron ℥j macerated without heat in lb.1 *m.* of canary, and then ſtrained. This is a uſeful cordial, but not ſo elegant as the tincture of ſaffron.

E. Tinc-

E. Tinctura Succini. *Tincture of Amber.* D. gut. 10 to 100.

This tincture is prepared of yellow amber reduced to a paſte, with oil of tartar per diliquum; which when gently exſiccated, and then mixed with about twenty times the quantity of rectified ſpirit of wine, is digeſted in a ſand heat, for eight days, and then filtrated for uſe.

It is a very elegant preparation of amber; of a grateful balſamic taſte, and fragrant ſmell; good in a lax ſtate of the ſolids, and debility of the nervous ſyſtem, in ſuppreſſion of the menſes, *fluor albus*, ſeminal gleets, rheumatic pains and epilepſies. It may be given in ſugar, or in any convenient vehicle.

Tinctura Regina. *Royal Tincture.*

This tincture is prepared of muſk ℈1, civet gr. 5, balſam of *Peru* gut. 12, oil of cloves gut. 4, oil of rhodium gut 2, dropt upon ʒſs of ſalt of tartar, and mixed altogether into a maſs, with two ounces of rectified ſpirit of wine; and after ſtanding many days in a cloſe veſſel, in a ſand heat, equal to that of the ſun, the clear ſpirit is poured off by decantation.

This is a very high perfume, and deſigned to give a flavour to any cordial medicine; one drop is enough to impart a very agreeable flavour to many ounces of other liquors.

Elixir Vitæ. *Elixir of Life.* D. gut. 40 to ʒij.

This elixir is prepared of mace, cinnamon, nutmegs *aa* ʒj, cloves ʒſs, outer rind of oranges and citrons *aa* ʒiij, ſaffron ʒij, digeſted in a ſand heat for ſome days, with lb. 3 of rectified ſpirit of wine, and then decanted for uſe. This is a very good cordial, and cephalic: it readily mixes in any liquid form for extemporaneous uſe.

JULEPA, SYRUPI, MELLA, &c.

L. Julepum e Moscho. *Muſk Julep.*

This julep is prepared of muſk gr. 12, double refined ſugar ʒj, ground together, and gradually mixed with ℥6 of damaſk roſe-water.

This

This julep is a ſtrong perfume, and proves of great uſe in lowneſs, faintings, *furor uteri*, *ſubſultus tendinum*, hyſteric fits, ſpaſms, *&c.*

L. E. Syrupus Caryophyllorum Rubrorum. *Syrup of Clove July Flowers.*

This ſyrup is prepared of clove *July* flowers, freſh and free'd from the heels, lb. 3, macerated for one night in a glaſs or glazed earthen veſſel, with lb. 1 *m.* of boiling water; and to the ſtrained liquor a proper quantity of ſugar is added.

This ſyrup is of an agreeable flavour, and fine red colour, for which it is valued. Sometimes the *ſyrupus de caryophyllis aromaticis*, ſyrup of clove ſpice, is uſed as ſuccedaneum to the other, when it is wanting.

L. Syrupus Croci. *Syrup of Saffron.*

This ſyrup is prepared of ſaffron wine lb. 1 *m.* as much double-refined ſugar diſſolved in it as is ſufficient to make a ſyrup.

Saffron is very well fitted for making a ſyrup, as in this form a ſufficient doſe of it is contained in a reaſonable compaſs; it is at preſent more frequently preſcribed than the wine from which it is made: it is a pleaſant cordial, and gives a fine colour to juleps.

L. E. Cyrupus Zingiberis. *Syrup of Ginger.*

This ſyrup is prepared of ginger cut in thin ſlices ℥iiij, macerated for ſome hours in lb. 3 *m.* of boiling water, and to the ſtrained liquor a proper quantity of ſugar is added to make a ſyrup.

This is an agreeable and moderately aromatic ſyrup, lightly impregnated with the flavour of the ginger.

Syrupus Cordialis. *Cordial Syrup.*

This ſyrup is prepared of ſaffron ʒſs, cloves ℥ij, ambergris gr. 10, infuſed in a cloſe veſſel in B. A. with lb. ſs of orange water, and lb. ſs of canary, for two

two or three days, and then to the clear liquor ℥22 of the fineſt ſugar are added and diſſolved, with a gentle heat. This ſyrup as much deſerves the name of a cordial, as any thing in this form can, and makes a very delightful mixture with any cordial water or ſpirit, where a perfume is not hurtful.

L. E. CONFECTIO ALKERMES. *Confection of Alkermes.* D. ℈1 to ʒij.

This confection is prepared of the juice of kermes grains warmed and ſtrained lb.3 *p.* damaſk roſe water ℥6 *m.* with lb.1 *p.* of double refined ſugar, diſſolved in it and mixed with the kermes; to the mixture, when cold, half a ſcruple of the oil of cinnamon is added.

The *Edinburgh* college directs this confection to be prepared of the ſyrup of kermes, evaporated to a conſiſtence of honey, lb.3, and then mixed with ſix drams of yellow ſaunders, and as much cinnamon, with three drams of cochineal, and a dram and half of ſaffron, all reduced to fine powder.

Both theſe compoſitions are agreeable and elegant cordials: the firſt uniformly mixes with juleps, without ſpoiling their tranſparency, which the other does not.

L. E. CONFECTIO CARDIACA. *Cordial Confection.* D. gr. 8 to ℈iſs.

This confection is prepared of roſemary tops freſh, juniper berries *aa* lb.1, leſſer cardamom ſeeds huſked, zedoary, ſaffron *aa* lb.ſs, infuſed in one gallon of proof ſpirit; the tincture being ſtrained off, and reduced by a gentle heat to the weight of about lb.2ſs, there are added to it of the compound powder of crabs claws ℥16, cinnamon and nutmegs *aa* ℥2, cloves ʒ1, all finely pulverized, and of double refined ſugar lb.2, and the whole mixed into an electary.

This is a reform of the *confectio Raleghana*, and proves a warm cordial and corroberant; it is ſometimes given in draughts, but more frequently in form of a bolus.

L. MEL SOLUTIVUM. *Solutive Honey.*

This honey is prepared of the liquor, remaining after the diſtillation of the damaſk roſes, lb.vi. *p.* cleared and boiled to lb.iii. *m.* towards the end, there are added, tied up in a linen cloth, of cummin ſeeds a little bruiſed, ℥i, then of brown ſugar lb.4, of honey lb.2 *p.* are added; and the mixture boiled to the conſiſtence of thin honey.

This compoſition is very well contrived for the purpoſes expreſſed in its title. It is principally employed in laxative clyſters when; given internally, double refined ſugar muſt be made uſe of, in place of brown, here directed.

PULVERES, BALSAMA, ET PILULÆ.

L. Pulvis e Succino Compositus. *Compound Powder of Amber.*

This powder is made up of prepared amber, gum arabic *aa* gr. 10, juice of hypociſtis, balauſtines, japan earth *aa* ʒv, olibanum ʒſs, ſtrained opium ʒj; reduced to powder.

This powder is a tolerably elegant, cordial reſtringent; ℈ij of the compoſition, contain one grain of opium.

L. Species Aromaticæ. *Aromatic Species.* E. Pulvis Diaromaton, *Aromatic Powder.* D. gr. 10 *to* ℈2.

This ſpecies is made up of cinnamon ʒij, leſſer cardamom ſeeds, huſked, ginger, long pepper *aa* ʒj, beat into a powder.

The *Edinburgh* college prepares their powder of nutmegs, leſſer cardamom ſeeds, and ginger, *p.æ.* mixed together, into powder.

Both theſe compoſitions are agreeable, hot, ſpicy medicines; good in cold phlegmatic habits, and decayed conſtitutions, for warming the ſtomach, promoting digeſtion, exciting the *vis vitæ*, and ſtrengthening the tone of the viſcera in general. This is a reform of the *ſpecies diambræ*, *ſpecies* of *diambra*; when ambergris and muſk are added, it is called, *ſpecies diambræ cum odoratis*, *ſpecies* of *diambra* with *perfumes*.

E. Balsamum Cephalicum. *Cephalic Balſam.*

This balſam is prepared of the expreſſed oil of nutmegs liquified ʒj, diſtilled oils of cloves, of lavender, of roſemary, *aa* ʒſs, diſtilled oil of amber ℈ſs, balſam of Peru ʒj, mixed according to art.

This balſam is recommended to be rubbed upon the temples, and paralytic limbs, for warming the parts, and comforting the nerves; and to be ſmelled at, for the refreſhing, and enlivening the ſpirits; ſome give it internally, as a warm cordial in languid caſes, and in debilities of the nervous ſyſtem. It went formerly under the name of *balſamum ad apoplecticos*, apoplectic balſam.

BALSAMUM ODORIFERUM. *Odoriferous Balſam.*

This balſam is prepared of oil olive, white bees-wax ſliced, and melted in a china baſon, placed in a pan of boiling water, *aa* ℥ij; the baſon being removed, there are dropped into it ʒiv of odoriferous eſſential oil, as that of cinnamon, or nutmegs, mace, lavender, roſemary, *&c.* or a mixture of two or three of them; to which is added, eſſence of ambergris; and having ſtirred the whole, till they are perfectly mixed, the baſon is plunged into a veſſel of cold water.

Theſe kinds of balſams, may be made of any colour: this is uſed in the ſame intentions, as the foregoing.

L. PILULÆ AROMATICÆ. *Aromatic Pills.* D. ℈j to ʒſs.

Theſe pills are made of ſocotorine aloes ℥iſs, gum guaiacum ℥i, ſeperately reduced into powder, aromatic ſpecies, balſam of *Peru*, rubbed together, *aa* ℥ſs; the whole mixed, and reduced into a maſs of pills, with ſyrup of orange peel.

Theſe pills are contrived to ſupply the place of the *Pilulæ Diambræ*; they are elegant, ſimple, and uniform; and excellently adapted to the purpoſes they are deſigned for. Taken in doſes of ℈j, or more, occaſionally repeated; they warm the ſtomach, and by degrees, the whole habit, promote perſpiration, and all the natural ſecretions: hence, in cold phlegmatic temperaments, ſluggiſh indiſpoſitions, and obſtructions of the viſcera, or remoter glands, proceeding from theſe cauſes, this ſtimulating, warm medicine, proves eminently ſerviceable; if the doſe is conſiderable, it operates gently by ſtool, and if continued for ſome time in ſmaller doſes, proves at length purgative, or introduces a ſalutary looſeneſs.

ELECTUARIA.

ELECTUARIUM CARDIACUM. *Cordial Electuary.*

This electuary is prepared of conſerve of roſemary flowers, conſerve of red roſes *aa* ℥iſs, orange peel, citron peel, and nutmegs, all candied, *aa* ℥j, candied ginger ʒvj, confection of kermes ℥ſs, oil of cloves gut. 20. ſyrup of cloves, a ſufficient quantity to make them into an electuary.

This was formerly in the *Edinburgh* diſpenſatory, but is now juſtly neglected. It is ſimilar in virtues to the confectio cardiaca; and may be of ſome uſe to give to children, and thoſe that are only prevailed upon to take phyſic, by giving ſweet medicines.

ELECTUARIUM CARYOCOSTINUM. *Clove and Coſtus Electuary.* D. ʒſs *to* ℥ſs.

This electuary is made of cloves, coſtus or zedoary, ginger, cummin ſeeds, and aſarum, *aa* ʒij, all pulverized, and ſtirred into honey of roſes, three times the quantity of the whole, to which is added half an ounce of diagrydium pulverized.

This electuary is recommended as a purger of choler, and for opening obſtructions of cachectical conſtitutions. It is an excellent purge for ſtrong habits; therefore is of great ſervice in rheumatiſms, and arthritic complaints; it's warmth alſo fits it for carrying away watery, cold humours, and therefore it is found of great ſervice in dropſies, and in groſs habits, alſo in apoplexies, and palſies; ℥ſs of the compoſition contains nearly gr. 15 of diagrydium. If to this compoſition you add turpeth, black hellebore, ſcammony, and ſagapenum, diſſolved in vinegar of ſquills, you will have a medicine, when given in ſmall doſes, of incredible ſervice in gouts, rheumatiſms, epilepſies, and in all other nervous diſorders. It will ſearch the inmoſt receſſes, and reach the ſmalleſt obſtructions, which are removed from the reach of moſt other medicines.

FORMULÆ

FORMULÆ EXTEMPORANEÆ.

℞ Balſam. peruvian. ℈1, vitel. ov. q. ſ. ſolut. aq. cinnamom. ſimpl. ℥iſs aq. nuc. moſch. ſyr. e cort. aurant. *aa* ʒ1 f. hauſtus.

℞ Ol. nuc. moſch. gut. 4, ſacchar. alb. ℈2 terentur, adde aq. menth. vulg. ſimpl. ℥2, m. f. hauſtus.

℞ Tinct. aromatic. ʒ1, vin. alb. ℥1 m. f. hauſt.

℞ Tinct. cardam. ℥ſs aq. menth. vulg. ſimp. ℥2, ſyr. e cort. aurant, ʒ1 m. f. hauſtus.

℞ Aq. alexet. ſimp. ℥iſs aq. junip. comp. ℥ſs rad. valerian. ſylv. pulv. ʒſs ſyr. balſ. q. ſ. ut f. hauſt.

℞ Spt. ſal. amm. dulc. ℥1, ol. cinnam. gut. 50. doſ. gut. 30, in quovis vehiculo.

℞ Aq. alexet. ſimp. ℥iſs, aq. junip. comp. ℥ſs, mithrid. ℈1, ſyr. ſimpl. q. ſ. ut f. hauſt.

℞ Spt. vol. aromat. gut. 30, aq. pur. ℥iſs pro doſi.

℞ Sal. c. c. ℈iſs, aq. puleg. ſimp. ʒx. ol. amygdalin. ℥ſs, ſyrup. ex alth. ʒ2, m. f. hauſtus.

℞ Aq. cinnam. ſimp. aq. cort. aurant. ſimp. *aa* ℥3, aq. N. M. ℥2, ſyr. e cort. aurant. ʒ4, m. f. julepum.

℞ Ol. cinnam. gut. 40, ſacchar. alb. ʒ3, terentur, adde aq. cinnam. ſimpl. ℥6 — ſpt. ℥1, m. f. julep. doſ. ℥ſs.

℞ Spt. c. c. gut. 20, aq. pur. ℥iſs pro doſi.

℞ Aq. ceraſ. nig. ℥6 — ſem. cardam. ℥2, ſpt. lavendul. comp. ſyr. croci *aa* ʒ2, m. f. julep.

℞ Aq. ceraſ. nig. — meliſſæ *aa* ℥3ſs, aq. mirab. ℥2ſs, ſacchar. ʒ2, ſpt. lavendul. ʒ3, caſtor ℈1, moſch. gr. 3, m. f. julep.

℞ Guaiac.

℞ Guaiac. ℥2, ſantal. citrin. ℥1, cinnamom. rad. angel. hiſpan. calam. aromatic. *aa* 32, cort. aurant. ℥1, flor. roris marin. — lavend, ſum. majoran. aa ℥1, infund. in vin. alb. cong.3 per unam vel alteram ſeptimanam, deinde col. pro uſu D. ℥2, his vel ter in die.

℞ Turpeth. ℥3, jalap. helleb. nig. aa ℥1, cinnam. 32, z. z. ℥ſs, flor. lavend. ℥1, in fund. in vin. alb. lb.4, per 14 dies cola; doſ. cochl. 3 vel 4 ante ſom. ſæpeque repet. in die.

℞ Caryophyl. z. z. *aa* ℥1, cinnam. nuc. moſch. contuſ. aa ℥2, ſacchar. lb. 3ſs. in fund. in vin. canar. lb.12, poſt aliquot temporis adde paulalum roriſmarin. lact. lb.2ſs cola. D. ℥iſs cum lact. ℥6.

℞ Moſch. ℈2, optime teretur cum ſacchar. alb. 32, deinde adde mucilag. gum. arab. ℥ſs, aq. cinnam. ſ. v. — menth. piper. *aa* ℥2 — aromat. 36 m. ſ. a. Doſ. cochl. 2, quarta quaque horâ.

℞ Ol. lavend. gut. 20, ſpt. vin. rectificat. 31, ſyr. e cort. aurant. ℥1, Doſ. cochl. min.

℞ Spec. aromatic. pulv. chel. ℈ comp. *aa* 31. ol. cinnam. gut. 3, m. divid. in ſex dos.

℞ Pulv. contray. comp. ℥4, croc. anglic ℥1, m. f. pulv.

℞ Contrayerv. pulv. 3ſs pro dos.

℞ Caryophyl. z. z. *aa* 31, cinnam. nuc. moſch. *aa* ℥1, vin. canar. lb.6 m. infunde per aliquot dies cola D. ℥ſs, cum ſuc. limon, ſæpe repitend. in die.

℞ Spec. aromatic. 3ſs conſerv. flav. cort. aurant. ℥2, conſerv. flor. lavend. q. ſ. ut f. elect. doſ. q. n. m. cum vin. hauſt.

℞ Cort. peruv. pulv. ℥1, rad. valerian. ſylveſ. 32, ſyr. e cort. aurant. q. ſ. f. elect. D. 31 mane.

℞ Sem. ſinap. conſerv. flor. ror. marin. *aa* ℥1, ſpt. lavend. 32, m. f. elect. D. q. n. m. cum vin. hauſt.

℞ Pulv.

℞ Pulv. rad. hellebor. nig. extract. pulv. myrrh. *aa* ʒ4, canel. alb. ʒ 2, ſyr. e cort. aurant. q. ſ. ut f. elect. D. ℈ſs ad. ℈1.

℞ Sem. ſinap. integr. conſerv. ſummit. abſinth. marit. *aa* ℥2, ſyrup. zingib. q. ſ. ut f. elect.

℞ Spec. aramat. ℥ſs, conſerv. flavid. cort. aurant. ℥iſs, ſyr. e cort. aurant. q. ſ. ut f. elect.

℞ Cardam. min. ſem. gr. 15, conſerv. roſar. ℈1, ſyr. zingib. q. ſ. ut f. bolus.

℞ Contrayerv. pulv. ℈1, ſyr. e cort. aurant. q. ſ. ut f. bolus.

℞ Zedoar. rad. ℈1, ſyr. zingib. q. ſ. ut f. bol.

℞ Sal. c. c. gr. 10, conſerv. roſar. ℈1, ſyr. zingib. q. ſ. ut f. bolus.

℞ Pulv. contrayerv. comp. ℈1, mithridat. ℈ 2, ſyr. papav. errat. q. ſ. ut f. bolus.

℞ Pulv. rad. contrayerv. rad. ſerpentar. *aa* gr. 10, theriac. andram. ℈iſs, ſyr. papav. errat. q. ſ. ut f. bolus.

℞ Croci gr. 8, conſerv. lujul. ℈iſs, ſyr. papav. errat. q. ſ. ut f. bolus.

℞ Pulv. contrayerv. comp. gr. 15, elect. e ſcordio ℈2, ol. cinnamom. gut. 1, ſyrup. papav. errat. q. ſ. ut f. bolus.

℞ Pulv. rad. contrayerv. ℈1, ſal. c. c. ſal. ſuccin. *aa* gr. 8, croci gr. 12, conſ. alkermes q. ſ. ut f. bolus.

℞ Moſch. ſal. vol. c. c. gr. 10, rad. ſerpentar. gr. 15, confect. alkerm. q. ſ. ut f. bolus.

℞ Camphor. croci *aa* gr. 5, confect. alkerm. q. ſ. ut f. bol.

℞ Moſch. confect. cardiac. *aa* gr. 12, m. f. bolus.

℞ Moſch. ſal. c. c. *aa* gr. 10, camphor. gr. 6, ſyr. croci q. ſ. ut bolus.

℞ Rad. ſerpentar. gr. 15, caſtor. gr. 10. camphor. gr. 3, ſyr. roſar. q. ſ. ut f. bolus.

℞ Caſtor.

℞ Caſtor. ℈i. ſal. c. c. gr. 5, ſyr. ſimp. q. ſ. ut bolus.

℞ Ambrægris. gr. 2. moſch. gr. 1, opii gr. 2, ſal. ſuccin. flor. benzoin *aa* gr. 6, balſ. peruv. ſ. q. ut f. pilulæ pro doſ. tribus

℞ Caſtor. ʒi. ſal. ſuccin. ℈i, balſ. peruvian. q. ſ. ut pil. doſ. 5, bis vel ter in die.

℞ Pulv. cinnabar. nativ. ʒ2, caſtor. ſal. ſuccin. *aa* ʒi, ol. majoran. eſs. gut. 12, balſ. peruv. ʒi, ſyr. zingib. q. ſ. ut f. pil. ʒi, N° 9, doſ. 3, bis vel ter in die.

℞ Ambrægris ℈iſs, ol. ror. marin — cinnamom. — nuc. moſch. *aa* gut. 2, ol. caryophl. — majoran. *aa* gut. 1, ſpt. lavend. gut. 80, ſacchar. ʒ4, gum. tragacanth q. ſ. ut f. trochi.

℞ Pulv. ſacchar. ℥i, ſpt. lavend. comp. gut. 60, ol. ror. marin. gut. 4, tragacanth. q. ſ. ut f. trochiſci.

℞ Myrrh. ambrægriſ. *aa* gr. 6, ſacchar. cond. alb. ℥i, ſp. ror. marin. gut. 10, amydal. ℥2, ſacchar. puriſs. ℥4, gum. tragacanth q. ſ. ut f. trochiſci.

℞ Pulv. caſtor. ℥i, nuc. moſch. croci angl. *aa* ℥ſs, extr. rad. valerian. ℥2, reſin. cort. peruv. 36, æther. vitriolat. lb. 1, m. degere leni calore B. A. per triduum et decantetur tinctura.

CHAP.

CHAP. II.

Of CARMINATIVES.

CARMINATIVES are properly thoſe medicines, that remove flatuſes, or pent up wind; and thereby eaſe pain.

Now, in order to underſtand how *carminatives* operate; we muſt conſider the nature of a flatus, and how it comes to be accompanied with pain.

When meat remains longer in the ſtomach, than by the laws of nature it ought, or when the ſaliva and gaſtric humours are corrupted, then the aliment undergoes a complete and irregular fermentation in the ſtomach; and by the heat, hurry, and tumult of that organ, wind and crudities are bred; which, being incloſed, become putrid, like putrified, ſtagnant air; but more ſo, as being more confined. And, being preſſed upon by the nervous fibres of the ſtomach, endeavours, by its elaſtic force, to rarify, and expand itſelf; and to make its way where there is leaſt reſiſtance, either by the upper or lower orifice of the ſtomach; and, if it finds free paſſage, diſcharges itſelf, without pain or flatus, by the mouth or anus, in a *ructus*, or *crepitus*.

But if it is pent up, by external force preſſing it, as in women that lace too tight; or by the contraction of the fibres, as happens in ſpaſms of the inteſtinal fibres, or firſt paſſages; then the putrid myaſma endeavours to expand itſelf; and, from the diſtenſion, occaſions pain. I knew a ſervant maid, who uſed to lace herſelf ſo tight, that ſhe ſeldom paſſed a *Sunday*, on which ſhe went to church, without an hyſteric fit; and was naturally ſo ſubject to hyſteric ſpaſms, that if ſhe eat a bit of hot bread, faſted too long, or made too large a meal, was ſure to have a fit that day.

In ſpaſms of the firſt paſſages, the ſphincter of the Œſophagus, or gullet, is often ſpaſmodically contracted, as in hyſteric perſons; hence the air is there included, and, being much rarified, preſſes upon the wind pipe, and occaſions the appearance of ſuffocation.

A contraction of this kind, ſometimes happens about each orifice of the ventricle; then the ſtomach is greatly diſtended. Much the ſame alſo happens, if any ſpaſm occupies, ſucceſſively, ſometimes one, ſometimes another part of the gullet; hence the appearance of a globule riſing up to the throat: which alſo happens, if any part of the inteſtinal tube is, at any time, contracted. Thus, we ſee, when ſpaſmodic cholics attack hyſteric women, who are very ſubject to them; the anus ſometimes is ſo cloſely contracted, as not to allow the admiſſion of a ſmall quill. The beſt remedy, in ſuch a caſe, is opium, muſk, caſtor, galbanum, *&c.* with clyſters of warm water, and laudanum, as ſoon as they can be injected.

Thoſe croakings and murmurings in the inteſtines of nervous people, particularly after a full meal, and before and during an hyſteric paroxyſm, ariſe from ſpaſms.

Theſe are the effects of a flatus in the *primæ viæ*; but they do not continue long there, till they enter further into the habit. The crudities, from indigeſtion, being converted into hot, putrid, and acrid wind and matter, are forced into the abſorbent veſſels, and by them conveyed into the maſs of blood. Hence ariſe wandering pains, not unlike the pains of the gout, or rheumatiſm, now in one place, then in another, ſhifting with ſudden ſtarts; theſe tranſient pains are not owing to the flatus taking theſe flights, as would appear to the patient, but to the contraction of the nerves in diverſe places. As ſoon as the workings of the fibres have removed the contraction in one place, and diſengaged themſelves of the acrid ſtimulating matter, perhaps the fibres, at a conſiderable diſtance, contract; upon which, the patient perceives the pain to ceaſe in one place, and ariſe in another; for where the obſtruction is greateſt, there the pain is moſt acute, and the influx of the nervous fluid greateſt; and till the nerves have, in ſome meaſure, diſengaged themſelves of the load laid upon them in that particular place, the ſoul is inattentive to pain in any other part of the body.

Now, in order to expel a flatus, we ſhould take off the too great ſenſibility of the nerves, relax the fibres of the muſcles, and remove their ſpaſms and contractions; and diminiſh the flux and preſſure of the nervous fluid upon the place affected, leſt inflammations, gangrenes, ruptures, mortifications, *&c.* ſhould enſue from the too great diſtenſion of the parts.

In

In this caſe, opium anſwers the intention as affectually, and much in the ſame manner, as bleeding does in an inflammation.

The next thing we are to do, is to endeavour to diſlodge the obſtructed matter, and expel it by perſpiration; which, in this caſe, is always obſtructed; whereby this putrid matter or ſteam, and what ſhould be diſcharged by inſenſible perſpiration, are thrown back into the cavity of the body.

The medicines, which cuſtom has placed under this head, and properly diſtinguiſhed by the name of *carminatives*, from *carmen*, a verſe; as they ſuppoſed, in the days of ignorance, that theſe medicines accompliſhed their cures by inchantment; and accordingly had a verſe, which they repeated, when theſe medicines were adminiſtered. Carminatives, I ſay, are very fit for this intention, as they are warm, ſtimulating, and diſcuſſive; they conſiſt of ſo ſubtile and volatile parts, as to be to able to enter the ſmalleſt veſſels; and, by their deterging, ſtimulating, and deobſtruent quality, they attenuate, obtund, and diſlodge the morbid matter, and ſtimulate the animal æther into a regular circulation, and due diſtribution over all the body; and thereby preventing it from wandering to this or that muſcle; and, by their warm cordial quality, they cheriſh and ſtrengthen the nerves, to throw off their excrementitious matter, by tranſpiration.

As cathartics, eſpecially of the rougher ſort, vellecate the coats of the inteſtines, and occaſion throws, convulſions, and ſpaſms, in the bowels; ſo the medicines, under this head, being warm, grateful, and diſcuſſive, mitigate theſe ſpaſms, and prove very uſeful ingredients, as correctors in purges.

They are alſo uſed in compoſitions of the diſcuſſive topics, as they warm, rarify, and attenuate the obſtructed humours.

All aromatics, ſeeing they are ſubſtances of a warm, pungent taſte, accompanied with a ſtrong odour, have a juſt title to this place. Their peculiar flavour and qualities reſide in a volatile oil, called eſſential, and in a groſs or reſinous ſubſtance, capable of being extracted by the ſpirit of wine.

Aromatics, conſidered as medicines, warm the ſtomach, and, by degrees, the whole habit; raiſe the pulſe, quicken the circulation; and, in cold, languid caſes, increaſe, ſtrengthen, and promote the natural ſecretions.

SIMPLICIA.

FOLIA.

Angelica. *Ditto.*

Has a fragrant, ſweet ſmell, and a pleaſant bitter taſte. The roots contain an unctuous, odorous, yellow juice; which is extracted by pure ſpirit, though not by water. The root is one of the moſt elegant aromatics of the *European* growth; it is cordial, ſudorific, and vulnerary; promotes the menſes, forwards delivery, and ſtrengthens the womb.

Angelicæ caules, angelica ſtalks; & *angelicæ radices*, angelica roots; are kept candid in the ſhops. There was a water diſtilled from the leaves; it ſmells and taſtes conſiderably of the angelica; but does not come over fine; nor does it taſte agreeably; and is therefore neglected.

Chamæmelum. *Chamæmele.*

Has a ſtrong, ungrateful, aromatic ſmell, and bitter nauſeous taſte; is a very powerful antiſeptic, and will even ſweeten corrupted fleſh; it is ſtimulating, aperient, emollient, and anodyne; good in flatulent cholics; promotes the menſes; and eaſes ſpaſmodic pains of child-bed women. It is ſometimes uſed in ſcrophulous caſes, intermittent fevers, and nephritis. I have often cured the ague by tea made of it with a little nitre, previouſly adminiſtering an emetic, or cathartic.

It is externally uſed in diſcutient and antiſeptic fomentations, and in emollient clyſters. The compound water of chamæmele flowers, is ſaid to be a good cardiac, and carminative.

Extractum flor. chamæmeli, extract of chamæmele flowers, drawn by water, is almoſt ſimply bitter; the particular flavour of the ſubject is diſſipated in the evaporation; it is, however, a uſeful bitter. D. ℈ſs. to 4.

The flowers give over their flavour in diſtillation with water, and accordingly the college orders a water to be drawn from them; which is kept in the ſhops, and is ſometimes uſed in flatulent cholics, and the like; but is, at preſent, in no great eſteem.

Fœniculum.

Fænniculum. *Fennel.*

The ſeeds, roots, and leaves of *fennel*, are uſed in phyſic; the leaves are much weaker than either the ſeeds or roots, and are ſeldom uſed in phyſic. The ſeeds are of the number of the four hot ſeeds, and are carminative and ſtomachic; the roots are not ſo warm, and are ranked amongſt the five opening roots; they are good againſt the ſtone in the bladder, or kidneys. A dram of fennel ſeeds, and as much of daucus ſeeds, in a glaſs of juniper water, every morning, have done great good in the gravel and ſtone.

Levisticum. *Lovage.*

The root of *lovage*, ſeems nearly to agree, in quality, with that of angelica; lovage only has a ſtronger ſmell, and leſs pungent taſte. The ſeeds are warmer, and more agreeable, than the root, which yields an unctuous, odorous juice; which, being inſpiſſated to the conſiſtence of an extract, proves a very elegant aromatic; ſtrengthens the ſtomach; is diſcuſſive, vulnerary, and carminative; good in jaundice, and obſtructions of the ſpleen; is uſed alſo in topics, as a ripener.

SEMINA.

Anethos. *Dill.*

Dill ſeeds are of a pale, yellow colour; of an aromatic, agreeable ſmell, and warm, pungent taſte: they are carminative, and good, in flatulent cholics, proceeding from a cold cauſe, or from a viſcidity of the juices. The moſt efficacious preparations of them are the extract, or tincture made with rectified ſpirit of wine, and the diſtilled oil, which is ſaid to be good in hyccups and vomiting.

Anisum. *Aniſe.* D. ℈1. to ℥1.

Aniſe-ſeeds have an aromatic ſmell, and pleaſant, warm, ſweet taſte. Water extracts little of their flavour; but rectified ſpirit extracts the whole. They are numbered among the four hot ſeeds: are good in cholic pains; in cold flatulent diſorders, where tenaceous phlegm abounds; and in the gripes, to which young

young children are ſubject: they alſo ſtrengthen the tone of the ſtomach, and viſcera; and are good in diarrhæas.

CARUI. *Caraway.* D. ℈ı. to ʒı.

Caraway ſeeds have an aromatic ſmell, and pungent taſte; are of the ſame virtues with aniſe-ſeeds; but ſomewhat more drying.

CORIANDRUM. *Coriander.* D. gr. 6. to ℈ı.

Coriander ſeeds have a ſtrong diſagreeable ſmell; but, in every thing elſe, differ little from any of the three foregoing ſeeds, which are all nearly of the ſame virtue; *cyminus*, cummin ſeeds are not often made uſe of; nor are the ſeeds of the *daucus ſylveſtris, vel criticus*, wild or candy carrot, often found in modern practice; though ſome accounted them good diuretics, and uſeful in uterine, and hyſteric diſorders.

CARDAMOMUM. *Cardamom.*

Theſe ſeeds are warm, grateful, pungent, and aromatic; they are the beſt of all the foregoing ſeeds; and do not immoderately heat the bowels, as thoſe of the pepper kind often do. Rectified ſpirit of wine extracts their virtues, by infuſion, and elevates them by diſtillation. The watery infuſion appears turbid, and mucilaginous; the ſpirituous tincture is limpid and tranſparent.

GRANA PARADISI. *Grains of Paradiſe.*

The *grains of paradiſe* are brought from the *Eaſt-Indies*; are more grateful and pungent than the cardamoms, and differ little from the pepper. The pungency does not reſide in the diſtilled oil but in the reſin, extracted by the ſpirit of wine.

LAURI BACCÆ. *Bay Berries.*

Theſe *berries* are brought from the *Streights*. They have a ſtrong aromatic ſmell, and warm, bitter, pungent taſte; they are warm, and carminative, and good againſt flatulent cholics, and hyſteric diſorders; moſtly uſed in clyſters, and external applications. The leaves enter our common fomentations; and the berries enter the plaſter and cataplaſms of cummin.

The

The *Edinburgh* college directed an oil to be diſtilled from bay berries; it is thin, limpid, and moderately pungent; has a ſtrong and grateful ſmell; good in flatulent cholics, and hyſteric complaints; allays the after-pains of delivery; and is a good carminative in clyſters; and in ſome hyſteric caſes is externally uſed.

Castoreum. *Caſtor.*

Is the inguinal glands of the beaver; of a brittle, reddiſh, and liver colour; has a ſtrong diſagreeable ſmell, and acrid, biting, bitter, and nauſeous taſte. Water extracts the nauſeous part, with little of the finer bitter. Rectified ſpirit extracts the finer bitter, with little of the nauſeous part. Water elevates the whole of its flavour in diſtillation; and rectified ſpirit brings over nothing. It has been eſteemed one of the capital nervine and antihyſteric medicines, and enters moſt of the nervous compoſitions; but its real merit is far inferior to what it has been thought to poſſeſs. It is ſaid to be good in diſtempers of the head and womb; and in fevers, when the nerves begin to be convulſed. It takes off a delirium, forwards a diaphoreſis, and brings the diſeaſe to a criſis. Some recommend it in the ſmall-pox and meaſles. It is beſt to give it in ſubſtance, or in the tincture.

PRÆPARATA.

PRÆPARATA.

OLEA.

L. Oleum ex Seminibus Anethi Essentiale. *Essential Oil of Dill Seeds.* D. Gut. 1. to 4.

Is a very warm oil; has a disagreeable flavour, resembling that of the seeds. It is sometimes preserved as a carminative in flatulencies, cholicy pains, hiccups, *&c.*

L. E. Oleum ex Seminibus Anisi Essentiale. *Essential oil of Anise-seeds.* D. Gut. 5. to 20.

This oil possesses the taste and smell of the seeds, in perfection; is one of the mildest of the distilled oils; its smell is extremely durable and diffusive; and is a good carminative, and, some say, pectoral. It congeals, even when the air is not sensibly cold, into a butyracious consistence.

L. E. Oleum ex Seminibus Carui Essentiale. *Essential Oil of Caraway Seeds.* D. Gut. 1. to 4.

The flavour of this oil exactly resembles that of the seeds; is very hot and pungent; frequently made use of as a carminative; and serviceable in promoting urine.

L. Oleum ex Floribus Chamæmeli. *Oil of Chamæmele Flowers.* D. Gut. 1. to 3.

This oil is pungent; has a strong, though not ungrateful smell, resembling that of the flowers; has a yellow colour, with a cast of green, or brown; is a good carminative and vermifuge; and is recommended in hysteric disorders. It suddenly removes flatuses, which occasion stitches and pains of the sides.

L. Oleum

L. Oleum ex Seminibus Cumini Essentiale. *Essential Oil of Cummin-Seed.* D. Gut. 1. to 3.

Is one of the warmer and leſs pleaſant oils; is chiefly employed in cold flatulent hyſteric complaints; and promotes urine, to which it gives a ſtrong ſmell.

E. Oleum Seminum Fæniculi Essentiale. *Essential Oil of Fennel-Seeds.* D. Gut. 2. to 12.

The oil obtained from *ſweet fennel ſeeds*, is much more elegant and agreeable than that from the common fennel; it is one of the mildeſt of the eſſential oils; and is ſimilar in warmth, flavour, and virtue, to that of aniſe-ſeed; and is given as a carminative in cold indiſpoſitions of the ſtomach, and in ſome kinds of coughs, for promoting expectoration.

AQUÆ.

L. Aqua Seminum Anethi. *Dill Seed Water.*

Is diſtilled from *dill ſeeds*, and turns out pretty ſtrong of them; is ſometimes uſed as the baſis of carminative juleps; is ſimilar in flavour to the water drawn from caraway ſeeds, but is not ſo agreeable.

L. Aqua Castorei. *Caſtor Water.*

Is diſtilled from *Ruſſia caſtor*, which yields almoſt all its flavour to water, in diſtillation; but gives over nothing to ſpirit of wine; is made uſe of in hyſteric caſes, and in ſome nervous complaints; loſes greatly of its flavour in keeping, and does not anſwer the expectation that ſome have of it.

L. E. Aqua Fæniculæ. *Fennel Water.*

Is diſtilled from *ſweet fennel ſeeds*; and is pleaſant and ſufficiently grateful.

L. Aqua Seminum Carui. *Caraway Seed Water.*

Is diſtilled from *caraway ſeeds*, allowing lb.ſs of ſeed to one gallon of proof ſpirit, with as much water as will prevent burning.

This water is a cordial in common uſe, and contains the flavour of the ſeeds, in perfection.

L. Aqua Seminum Cardamomi. *Cardamom Seed Water.*

Is diſtilled from ℥4 of leſſer *cardamom ſeeds*, free'd from the huſks; and one gallon of proof ſpirit, with as much water, as is ſufficient to prevent burning.

This water is a grateful cordial and carminative; for the cardamom ſeeds give over the whole of their flavour.

L. Aqua Seminum Anisi Composita. *Compound Aniſe-ſeed Water.*

Is diſtilled from lb.ſs of *Aniſe-ſeeds*, as much angelica, and one gallon of proof ſpirit, with as much water as is ſufficient to prevent burning. This is a very elegant water.

TINCTURÆ.

Tinctura Cardamomi. *Tincture of Cardamoms.* D. 31. to ℥1.

Is prepared of leſſer *cardamom ſeed* ſhucked lb.ſs digeſted without heat, with lb.2 *m.* of proof ſpirit; and then ſtrained off.

This is a pleaſant warm cordial, and may be taken along with any proper vehicle.

Tinctura Castorei. *Tincture of Caſtor.* D. Gut. 20 to 60.

Is obtained by digeſting ℥2 of caſtor in powder, for ten days, with heat, in lb.2 *m* of proof ſpirit; and then ſtraining it off.

The *Edinburgh* college directs this tincture to be prepared from ℥1ſs of *Ruſſia* caſtor, digeſted with a gentle heat for four days, with lb.1 of rectified ſpirit of wine; and then to be ſtrained off.

This

This tincture would be better, and poſſeſs more of the virtues of the caſtor, if the ſpirit of *Ruſſia* caſtor was uſed as a menſtruum. It is good in moſt kinds of nervous and hyſteric complaints.

The ſpirit of caſtor, formerly kept in the ſhops, was prepared of *Ruſſia* caſtor ℥4, dried flowers of lavender ℥1, ſage and roſemary *aa* ℥ſs, cinnamon 36, mace and cloves *aa* 32, digeſted and diſtilled in B. M. to dryneſs, with lb.6 of rectified ſpirit of *French* brandy. This is a much better medicine, for many purpoſes, than the tincture of caſtor; being pleaſanter to the ſight and taſte. It is an excellent cephalic; and good for all diſtempers, whoſe ſeat is in the nerves, and in epilepſies, apoplexies, palſies, head-achs, childrens convulſions, *&c.* It may be given in any convenient vehicle, from Gut. 5 to 40; and well deſerves a place in the *College Diſpenſatory*.

ELECTARIUM.

L. ELECTARIUM E BACCIS LAURI. *Electary of Bay Berries.* D. ℈1 to 32.

Is prepared of rue leaves dried, caraway ſeeds, parſley ſeeds, bay-berries, *aa* ℥1, ſagapenum ℥ſs, black pepper, *Ruſſia* caſtor, *aa* 32, made up with clarified honey, thrice the weight of the powdered ſpecies.

The *Edinburgh* College, when it was retained in their Diſpenſatory, directed this electary to be made of conſerve of rue ℥2, ginger candied ℥1, bay-berries ℥ſs, zedoary 32, *Ruſſia* caſtor 31, eſſential oil of fennel ſeeds, gut. 20, ſyrup of orange peel, a ſufficient quantity to make an electary.

Theſe compoſitions are ſometimes taken in flatulent cholics, and pains of the bowels, from cold cauſes: but their principal uſe is in carminative clyſters.

FORMULÆ EXTEMPORANEÆ.

℞ Aq. fœnicul. ℥6—junip. comp. ℥2, ſyr. caryophyl. rubr. 34, m.

℞ Aq. piper. Jamaic. ℥6, — ſemſ. ani. com. ℥2, ſyr. e cort. aurant. 34, m.

℞ Aq. ſem. aneth. ℥6 — ſem. carui. ℥2, ſyr. zingib. 34, m.

℞ Ol. aniſi gut. 40, ſacchar. alb. 53, aq. menth. pip. ſimp. ℥6, m. f. julep. doſ. ℥ſs.

℞ Tinct. cardam. ℥ſs, aq. menth. pip. ſimp. ℥2, f. hauſtus.

℞ Aq. puleg. ſimp. ℥4, tinct. caſtor. 52, ſal. c. c. gr. 10, ſacchar. 36, m. f. julep.

℞ Aq. alexet. ſimp. ℥4—aq. cort. aurant. ſimp. ℥2, tinct. croci 32, ſacchar. 34, m. ut f. julep.

℞ Aq. cinnam. ſimp. ℥4, — menth. vulg. ſpt. ℥2, ſpt. ſuccin. 31, ſacchar. alb. 36, m. f. julep.

℞ Aq. alexet. ſimp. ℥iſs,—junip. ℥ſs, tinct. thebaic. gut. 20, ſyr. caryophyl. q. ſ.

℞ Sal. c. c. ℈ſs, aq. puleg. ſimp. ℥2, ſyr. e flor. paralyſ. 31, m.

℞ Aq. alexet. ſimp. ℥6, — nuc. moſch. ℥1, elect. e ſcord. 33, m.

℞ Aq. puleg. ſimp. — caſtor. *aa* ℥3,— puleg. ſpt. ℥2, ſyr. ſimp. 32, m. f. jul.

℞ Aq. alexeter. ſimpl. ℥6 — ſem. cardam. ℥2, ſpt. lavend. comp. ſpt. vol. aromatic. *aa* 31, ſyr. caryophyl. 34, m. f. julep.

℞ Aq. ſem. aneth. ℥4, — menth. piper. ſpt. ℥2, tinct. cardam. ſyr. z. z. *aa* 32 m.

℞ Aq. roſar. damaſcen. ℥6, ſpt. vol. oleos ℥iſs, moſch. gr. 15, ſacchar. alb. 34, m. doſ. ℥ſs

℞ Aniſ. ſem. ſacchar. alb. *aa* ℥ſs, f pulvis doſ. cochl. min.

℞ Carui

℞ Carui ſem. ʒ2, nuc. moſch. ʒſs, ſacchar. alb. ʒ3, f. pulvis in doſ. 7, dividend.

℞ Sem. aniſ. — fœnicul. dul. *aa* ℈2, z. z. ℈1, nuc. moſch. gr. 10, ſacchar. pur. ℈2, m. f. pulvis in doſ. 4 dividend.

℞ Cinnam. macis zingib. *aa* ℈1, ſem. aniſ.—carui — fœnicul. *aa* ℈2, ſacchar. ʒ2, m. f. pulv. doſ. ℈2.

℞ Conſerv. flav. cort. aurant. — flor. ror. marin. *aa* ℥1, pulv. laur. bacc. ʒ2, ol. e flor. chamæmel. gut. 6, ſyr. caryophyl. rubr. q. ſ. ut f. electarium.

℞ Rad. angelic. ℥1, ſyr. zingib. ℥1, ol. ex ſemin. carui gut. 6, ſyr. caryophyl. q. ſ. ut f. electarium doſ. q. n. m.

℞ Moſch. confect. cardiac. *aa* gr. 12, m. f. bolus.

℞ Pulv. rad. angelic. ʒ1, ol. ex flor. chamæmel. — ol. nuc. moſch. — caryophyl. — ex flor. abſinth. *aa* gut. 2, ſacchar. alb. pur. ℥4, gum. tragacanth. q. ſ. ut f. trochiſci.

CHAP.

CHAP. III.

Of HYSTERICS *and* UTERINES.

AS many of the ſymptoms, called hyſteric, proceed from menſtrual obſtructions, ſo, in order to underſtand the manner by which the medicines under this head operate; we are firſt led to conſider the nature of thoſe complaints they are deſigned to remove: which are chiefly thoſe peculiar to women; wherein the womb is principally concerned, which generally arrives at full growth about the age of fifteen; then the woman, if in health, has a diſcharge of blood from the womb.

The womb is a membranous ſubſtance, ſituated in the lower belly, between the bladder and *inteſtinum rectum*, with its neck extended to the *pudenda*; in its coats are many blood veſſels, ariſing from the hypogaſtrics, that open into its interior cavity.

Uterine arteries, being of a particular poſition and make, have no inoſculation with the veins; for which reaſon they cannot pour the blood into them, that it may return to the heart. But when theſe veſſels are filled with abundance of blood, and ſo far diſtended by the force of the heart, and ferment of circulation, that their orifices or ſphinctors are at length dilated and forced open; they then diſcharge their contents into the cavity of the womb, which remove the plethora from the neighbouring parts for that time, and the veſſels again contract themſelves. This diſcharge happens every fourth or fifth week, or oftener, and is called the menſtrual purgation, menſes, courſes, or catamenia. The quantity ought to be in proportion to the heat and abundance of the blood, but is not confined to any limited quantity, in ſome it is more, in others leſs.

This diſcharge of ſuperfluous blood becomes neceſſary at the age of fifteen, or before, for the preſervation of health; becauſe the body then has its due magnitude, and the blood begins to overflow, and abound in the uterus and other parts: hence the breaſts grow large, *&c.* As long as the momentum or velocity of the blood's motion in circulation is greater than the reſiſting force of

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volatile ſalts, they ſtimulate and irritate the uterine arteries; and thereby excite the menſtrual flux, ſoon, and in leſs quantity, than in plethoric conſtitutions.

Now, if it be aſked, why the efflux of blood from the womb is not always, but only at ſtated times? *Boerhaave* accounts for it thus; he ſays the ends of the arteries are, in a manner, triſi'd, or divided into three branches; of which the middle one goes into a vein, and the two lateral gape into cavities, one into a gland, and the other into lymphatic veſſels; the middle branch tranſmits the thicker blood; and the other two, becauſe they are more tender and ſmall, tranſmit only the more ſubtile part of it. Now let us ſuppoſe, that there is an obſtacle in the veins, for example, from a plethora, or a greater preſſure than uſual in the arteries; then the lateral veſſels muſt be ſo far dilated, that thoſe, which admitted nothing before but lymph, now admit the red blood: becauſe they are of a finer ſtructure, and gape into cavities, where there is no obſtacle reſiſting the impetus: but it is quite otherwiſe, with regard to the middle branch. As ſoon as that obſtacle in the veins is removed, or the preſſure and force of the heart is diminiſhed, and the plethora removed by the plentiful flowing of the blood, then the lateral veſſels contract themſelves, and the blood returns by the veins.

This may be illuſtrated by the example of the external horny coat of the eye, which, in its natural ſtate, is evidently white; hardly any but the lateral veſſels of the arteries go to it; if any thing impedes the free flow of the blood out of the arteries into the veins; for example, if the neck is ſtrait bound, then thoſe veſſels of the cornea, at firſt inconſpicuous, grow red and conſpicuous, by means of the preſſure; becauſe the blood, being hindered from flowing into the veins, is ſqueezed into the lateral veſſels: but, as ſoon as the preſſure is removed, the redneſs vaniſhes. It is the ſame in the uterine veſſels, where there are lymphatic veſſels, or the ſmalleſt extremities of arteries, gaping into the cavity of the womb: but that this blood flows out of the lateral veſſels, when dilated, appears evident from the flowing of the *lochia*, which gradually loſes its red colour.

The diſcharge of ſuperfluous blood in women is determined this way; becauſe there is no where leſs reſiſtance than in the veſſels of the womb: and there is no part in the body, into which the blood flows from ſo many different parts, as in the womb; the arteries being very numerous, and the veins ſinuous, winding, and

and deſtitute of valves; which is not ſupplied by the compreſſions of the muſcles that propel the venal blood; for there is no part of the body that has fewer muſcles about it. Therefore the blood, contained in the veins, is more apt to retard and reſiſt the blood coming from the arteries; conſequently, in a plethora, occaſions a rupture of the veſſels, where there is leaſt reſiſtance; which continues, till by a ſufficient diſcharge, the veſſels are eaſed of their overload.

The menſes ſeldom flow in pregnant women; becauſe the ſuperfluous portion of chyle, that was before turned to blood, to ſupply the menſtruous flux, now goes to the formation and nouriſhment of the fœtus; and the remaining part generally is too ſmall to make the veſſels turgid and plethoric.

Women that give ſuck ſeldom have the menſes; becauſe the ſuperfluous chyle paſſes away in milk.

The menſes generally ceaſe to flow between forty-five and fifty, partly from the defect of blood and heat; and partly from the dryneſs and ſtraightneſs of the paſſages; the fibres become rigid, the incrementum of blood diminiſhed, and the diſcharge becomes unneceſſary.

Towards the criſis of the menſes, the perſon complain of a pain in the loins, breaſt, or head, according to the circumſtances of the plethora; all which complaints diſappear when the catamenia flow. If this redundant blood does not flow at the ſtated times, and no other evacuation ſupplies the place, then it occaſions a chloroſis, or green-ſickneſs, a heavineſs, ſenſe of weight, pain of the loins, and groin, paleneſs, a deprivation of almoſt all the natural, vital, and animal functions; twitching pains, pain in the head, giddineſs, ſwimming, reaching to vomit, panting and difficult breathing, convulſions, a ſpecies of madneſs, called *furor uteri*; ſometimes the blood, by its putrefaction, injures the veſſels, and produces an infinite number of diſeaſes. If the blood has continued ſo long viſcid, as to breed hard-pointed acrid concretions, they twitch, ſtimulate, and wound the nerves of the womb, whereby it is put into thoſe throws, ſpaſms, and convulſions; which affect the whole body, and are often the cauſe of nervous fits.

The ſame blood, thus accumulated, is ſometimes evacuated by uncommon paſſages, as by the noſtrils, eyes, ears, nails, gums, ſalival ducts, œſophagus, breaſts, lungs, ſkin; alſo by ſtool, urine, and from wounds and ulcers.

To remove ſo dangerous a plenitude, we muſt uſe plentiful bleeding, repeated purges, warm baths, fumigations, and exerciſe.

If the flux is too great or frequent, ſo as to exhauſt the ſtrength, we muſt preſcribe bleeding, before the return of the period, with reſt, cooling and reſtringent medicines, internally and externally applied and injected into the vagina.

There is ſometimes too great a diſcharge of mucus from the inſide membrane of the uterus, deſigned to lubricate its cavity and neck, and prevent their coaleſcing: the effect of this diſcharge, is called *fluor albus*, and proceeds from a plenitude in thoſe who eat plentifully without taking ſufficient exerciſe: it is to be remedied by general evacuations, a more aſtringent diet and excerciſe: if it has been of long continuance, and proceeds from a bad habit, and weakened conſtitution, then it will be neceſſary to uſe repeated emetics, gentle exerciſe, and ſtrengthening medicines: if cancerous, it muſt be palliated by anodynes, and gentle detergents, to open the glands, and wear off, by degrees, the obſtructed humours; which, being lodged upon the glands of the womb, are apt to render it cancerous.

Sometimes the uneaſineſs of the burden in geſtation, and often the diſorders of the fœtus itſelf, bring the womb, and, by degrees, the whole nervous ſyſtem, into convulſive diſorders; which are to be eaſed by gratifying all the woman's deſires; and, if very troubleſome, by bleeding and bliſters.

If the conſtitution is very weak, and the menſes long obſtructed, from a lentor, viſcocity, and retarded motion of the fluids in the uterus, and neighbouring parts; then every thing, that will gradually attenuate the fluids, and quicken the circulation, ought to be adminiſtered; as mercurial, antimonial, and chalybeate medicines, together with warm, bitter, ſtomachic ingredients, proper diet, and exerciſe.

Having found, that the excretion of the menſtrual blood, in a healthy perſon, is owing to three cauſes; 1. A plethora. 2. A determination of the plethora, or ſuperfluous blood to the womb, as the leaſt reſiſting part. 3. A fitneſs of the uterine veſſels for excretion: hyſterics, uterines, or emmenagogues, therefore may alſo be reduced to three heads, *viz.*

1. Thoſe

1. Thoſe which cauſe a plethora.

2. Thoſe which determine it to the womb. And

3. Thoſe that diſpoſe the uterine veſſels to excretion; and, according to their degree of force in operating, have got different names, and contain all the aperient uterine topics; the mildeſt are called *ariſtolochias*, or thoſe medicines that promote the lochia; and if ſternutatories are joined with them, in order to increaſe their action, they are called *echolics*; the ſtrongeſt of all are called *abortives*, or thoſe medicines which open the womb, expel the fœtus and placenta, and procure abortion. And thus whatſoever medicines, either ſimple or compound, contribute to any of theſe ends, though very different in their operations, come under the general appellation of hyſterics, uterines, or emmenagogues.

Whoever would cure a woman, labouring under a ſuppreſſion of the menſes, ought firſt to enquire whether there is a plethora, or matter, to be excreted; and, if this is wanting, medicines of the 2d and 3d claſs would do more harm than good.

1*ſt*, A plethora is produced by every medicine, which cauſes more chyle to be received into the veins, from meat and drink, by the power of the firſt bowels; than is required for the increaſe and nouriſhment of the body, for repairing the loſs.

2*ly*, By every medicine, which ſo ſtrengthens and affects the ſecond bowels, called *hæmatopœa*, or *blood-making*, that they turn the chyle into good blood.

3*ly*, By the removal of ſuch cauſes as attenuate and diſſipate the collected blood.

We have three different kinds of medicines contained under the firſt claſs of emmenagogues, or thoſe which cauſe a plethora.

The *firſt* kind contains thoſe, which increaſe the force of the firſt viſcera, or thoſe which are appropriated to chylification; amongſt which alſo are to be enumerated; thoſe which diſſolve the ſluggiſh fœces, and purge them off, when diſſolved, by a ſtimulus. For the cavities of the inteſtines are always lined with a certain mucus, ſecreted from the glands; if it is thick, and adheres, it obſtructs the orifices of the ſmaller veſſels, and ſo hinders the paſſage

of the chyle into the lacteal veſſels. Hence ariſes inanition, or atrophy, which is contrary to a plethora. Therefore if there is ſuch a mucus, as to cauſe a plethora, it ought to be diſſolved and expelled. Thoſe medicines, which diſſolve the mucus, are the aromatic, fœted gums; which adhere, by their viſcoſity, and mix themſelves, by their ſaponacious quality, with the pituita, and diſſolve it; and, at the ſame time, by their acrimony, ſtimulate and promote its expulſion: for, they are eaſily diſſolved, by the heat of the body; and while they remain diſſolved, the acrid contained in them, exhales, ſtimulates, and gently deterges the viſcera. They do not act by any power directly appropriated to the womb; but by their own diſſolving, ſaponacious, aromatic quality; which renders them very ſerviceable, when the entrance of the chyle is obſtructed by mucus; which often happen in hypochondriacal, hyſterical, and nervous caſes. All alkaline volatile ſalts, as ſalt of hartſhorn, the compound fixed ſalts, as borax, ſal ammoniac, vitriol, tartar, ſal polychriſtus, *&c.* have a great effect, but it ſoon ceaſes; all ſoaps whatſoever, as they approach to the nature of gums, are much cried up for diſſolving the mucus, provoking the menſes, and procuring abortion. Theſe are all detergers of the firſt paſſages. If you find the foregoing medicines, at any time, too weak to expel the diſſolved matter, you may add either aloes, rhubarb, coloquintida, jalap, *&c.* which are ſtronger than the former; and both diſſolve and expel at the ſame time.

Now that the bowels may make good chyle, and propel it into the lacteal veſſels, their contractile force muſt be increaſed, by all medicines, that make the fibres more rigid, as ſteel, bark, bitters, *&c.* Nothing is of more ſervice, in theſe caſes, than ſteel; eſpecially if given under ſuch a form as not to mix with the blood, but to act on the ſolids, by corroborating the fibres; for if it mixes with the blood, it is highly coagulating. The uſe of ſteel obtains, when a due rigidity of the bowels is wanting; and where there is plenty of pituita: if an acid abounds, then it may be taken in ſubſtance; but if a ſluggiſh, and not acid mucus predominates, the ſteel may be given in Rheniſh wine, or vinegar: the *Peruvian* bark, given in any form, obtains the next place to ſteel; and, both joined together, make the beſt corroborant in the *materia medica*. If an acid predominates, it may be known by an appetite to improper and unuſual things: ſower eruptions, gripes with a ſenſation of cold, niderous eructions after the taking of vinegar. If ſteel does not agree, it excites anguiſhes, vomitings, diarrhæas, and gripes. Hitherto belong thoſe warm and ſtimulating aromatics; which afford a great deal of very acid oil, by diſtillation.

The

The *ſecond* kind of medicines, that cauſe a plethora, is thoſe which increaſe the blood making power in the heart and veſſels. Now that power is no other than the oſcillatory force of the veſſels; and this is increaſed by the ſame medicines already mentioned, for chylification. Thoſe which ſerve for chylification, promote ſanguification: for it is impoſſible for the firſt paſſages to be amended, without amending the ſecond; or for the ſecond to be amended, without the firſt.

The *third* kind of medicines, cauſing a plethora, is thoſe, which prevent the too great conſumption and diſſipation of the collected blood: therefore we ſhould avoid whatever excites ſweat, or too great perſpiration.

The SECOND claſs of emmenagogues, or uterines, contains thoſe medicines which determine the plethora to the womb; diminiſhing the reſiſtance in the uterine veſſels, and, at the ſame time, increaſing it in the others. But the reſiſtance of the uterine veſſels is diminiſhed two ways: *firſt*, by relaxing the veſſels; and *ſecondly*, by accelerating the reflux of the blood, from the lower veins towards the heart.

The *firſt* contains warm baths, applied as far as the navel; for, by this means, the veſſels of the lower parts are relaxed, while thoſe of the upper parts are conſtringed by the coldneſs of the air; eſpecially if the upper parts are expoſed to the cold air. Alſo all external heat, by fomentations and frictions, applied to the lower parts; bathing the feet, or opening a vein of the foot; all ointments made of fat, oil, and ſaline aromatics, as *unguentum nervinum*, *arthriticum*, *&c.* laid upon the feet, legs, or groin; all relaxing and warm plaſters, prepared of the fœtid gums, which relax, and, at the ſame time, reſtrain the perſpirable matter, whence a greater heat ariſes, under the form of a continued bath; and all cataplaſms, ointments, plaſters, and baths, made of the uterine plants.

The *ſecond* includes all frictions from the ſoles of the feet to the groin, with warm and dry linen cloths, for half an hour at a time; alſo walking, leaping, and running.

The THIRD claſs of uterines, or emmenagogues, contains thoſe that diſpoſe the uterine veſſels to excretion, as the vapours of fair water, applied to the lower parts; relaxing fomentations, applied by means of ſpunges, or linen cloths, to the

of the chyle into the lacteal veſſels. Hence ariſes inanition, or atrophy, which is contrary to a plethora. Therefore if there is ſuch a mucus, as to cauſe a plethora, it ought to be diſſolved and expelled. Thoſe medicines, which diſſolve the mucus, are the aromatic, fœted gums; which adhere, by their viſcoſity, and mix themſelves, by their ſaponacious quality, with the pituita, and diſſolve it; and, at the ſame time, by their acrimony, ſtimulate and promote its expulſion: for, they are eaſily diſſolved, by the heat of the body; and while they remain diſſolved, the acrid contained in them, exhales, ſtimulates, and gently deterges the viſcera. They do not act by any power directly appropriated to the womb; but by their own diſſolving, ſaponacious, aromatic quality; which renders them very ſerviceable, when the entrance of the chyle is obſtructed by mucus; which often happen in hypochondriacal, hyſterical, and nervous caſes. All alkaline volatile ſalts, as ſalt of hartſhorn, the compound fixed ſalts, as borax, ſal ammoniac, vitriol, tartar, ſal polychriſtus, *&c.* have a great effect, but it ſoon ceaſes; all ſoaps whatſoever, as they approach to the nature of gums, are much cried up for diſſolving the mucus, provoking the menſes, and procuring abortion. Theſe are all detergers of the firſt paſſages. If you find the foregoing medicines, at any time, too weak to expel the diſſolved matter, you may add either aloes, rhubarb, coloquintida, jalap, *&c.* which are ſtronger than the former; and both diſſolve and expel at the ſame time.

Now that the bowels may make good chyle, and propel it into the lacteal veſſels, their contractile force muſt be increaſed, by all medicines, that make the fibres more rigid, as ſteel, bark, bitters, *&c.* Nothing is of more ſervice, in theſe caſes, than ſteel; eſpecially if given under ſuch a form as not to mix with the blood, but to act on the ſolids, by corroborating the fibres; for if it mixes with the blood, it is highly coagulating. The uſe of ſteel obtains, when a due rigidity of the bowels is wanting; and where there is plenty of pituita: if an acid abounds, then it may be taken in ſubſtance; but if a ſluggiſh, and not acid mucus predominates, the ſteel may be given in Rheniſh wine, or vinegar: the *Peruvian* bark, given in any form, obtains the next place to ſteel; and, both joined together, make the beſt corroborant in the *materia medica.* If an acid predominates, it may be known by an appetite to improper and unuſual things: ſower eruptions, gripes with a ſenſation of cold, niderous eructions after the taking of vinegar. If ſteel does not agree, it excites anguiſhes, vomitings, diarrhæas, and gripes. Hitherto belong thoſe warm and ſtimulating aromatics; which afford a great deal of very acid oil, by diſtillation.

The

The *ſecond* kind of medicines, that cauſe a plethora, is thoſe which increaſe the blood making power in the heart and veſſels. Now that power is no other than the oſcillatory force of the veſſels; and this is increaſed by the ſame medicines already mentioned, for chylification. Thoſe which ſerve for chylification, promote ſanguification: for it is impoſſible for the firſt paſſages to be amended, without amending the ſecond; or for the ſecond to be amended, without the firſt.

The *third* kind of medicines, cauſing a plethora, is thoſe, which prevent the too great conſumption and diſſipation of the collected blood: therefore we ſhould avoid whatever excites ſweat, or too great perſpiration.

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The *firſt* contains warm baths, applied as far as the navel; for, by this means, the veſſels of the lower parts are relaxed, while thoſe of the upper parts are conſtringed by the coldneſs of the air; eſpecially if the upper parts are expoſed to the cold air. Alſo all external heat, by fomentations and frictions, applied to the lower parts; bathing the feet, or opening a vein of the foot; all ointments made of fat, oil, and ſaline aromatics, as *unguentum nervinum*, *arthriticum*, *&c.* laid upon the feet, legs, or groin; all relaxing and warm plaſters, prepared of the fœtid gums, which relax, and, at the ſame time, reſtrain the perſpirable matter, whence a greater heat ariſes, under the form of a continued bath; and all cataplaſms, ointments, plaſters, and baths, made of the uterine plants.

The *ſecond* includes all frictions from the ſoles of the feet to the groin, with warm and dry linen cloths, for half an hour at a time; alſo walking, leaping, and running.

The THIRD claſs of uterines, or emmenagogues, contains thoſe that diſpoſe the uterine veſſels to excretion, as the vapours of fair water, applied to the lower parts; relaxing fomentations, applied by means of ſpunges, or linen cloths, to the

the groin; and all relaxing cataplaſms, plaſters, paſſaries, &c. The vapour of acrids is much commended; as the vapour of urinous alkaline ſalts, received into the womb, which however is not without danger; for it vehemently irritates, and cauſes a great contraction in the uterine fibres: ſuch a vapour, therefore, ſhould be cautiouſly applied; for it often makes the womb barren, and produces horrid contractions and ſpaſms. If the vapour is moſt acrid, it inflames the womb, whence a gangrene, or ſchirrus, may eaſily ariſe: and if the womb is violently inflamed, the whole nervous ſyſtem is affected with ſpaſms: wherefore if ſuch a vapour is ever uſed, great care ſhould be taken that it be not too acrid. Let that vapour ſuffice, which exhales from a ſmall quantity of ſpirit of ſal ammoniac, and a large quantity of water, mixed and made warm. The ſteam of urine and quick lime, mixed and ſet over the fire, is too acrid.

SIMPLICIA.

FOLIA.

Artemisia. *Mugwort.*

Has a lightly aromatic ſmell, and herbacious bitter taſte; is ſaid to be opening and diſcuſſive; promotes the menſes; cleanſes the womb; and is a good antihyſteric. There was a ſyrup, called *ſyrupus artimiſia*, ſyrup of mugwort, formerly kept in the ſhops; but it was ſo crouded with troubleſome and inſignificant ingredients, that it is now juſtly neglected; as the mugwort, and all the other ingredients, that went to the making up of the ſyrup, impart their virtues much better and eaſier to decoction. There was a water diſtilled from the leaves of mugwort, which was once in eſteem as an uterine; but is now neglected by the College; and is, at preſent, ſeldom called for; and as ſeldom kept in the ſhops.

Atriplex Foetida. *Stinking Arach.*

Has a ſtrong fœtid ſmell; and is a good antihyſteric, and uterine.

The *Atriplex ſativa*, *garden arach*, is chiefly employed for culinary purpoſes. They are both cooling and gently laxative; a decoction of the leaves is of good uſe in coſtiveneſs, where the patient is of a hot bilious habit.

Cardiaca.

CARDIACA. *Motherwort.*

Has a ſtrong diſagreeable ſmell, and bitter taſte; is a good antihyſteric; and is ſaid to promote urine.

CALAMINTHA. *Calamint.*

Differs little from ſpear-mint; is only ſomewhat hotter, and has a leſs pleaſant odour; which gives it the preference in hyſteric caſes.

MATRICARIA. *Fever-few.*

Is of the nature of chamæmele flowers; is a warm, ſtimulating, carminative bitter; good in ſuppreſſions of the menſes, from coldneſs and languor; is diuretic and antihyſteric; reſiſts putrefaction, and is good in dropſies.

PULEGIUM. *Penny Royal.*

Is warm, pungent, aromatic, aperient, and detergent; is deſervedly eſteemed in hyſteric caſes, and ſuppreſſions of the menſes; good in pleuriſies, jaundice, and in all diſorders ariſing from obſtructions; is an excellent pectoral; and is eſteemed in aſthmas and difficulty of breathing. Water and rectified ſpirit extract its virtues by infuſion; and elevate them in diſtillation.

SABINA. *Savin.*

Has a bitter, acrid, biting taſte; ſtrong diſagreeable ſmell; and warm, irritating, aperient quality: promotes ſweat, urine, and all the glandular ſecretions; ſtrengthens the womb; opens obſtructions of the viſcera; and kills worms. Outwardly applied, it cleanſes old foul ulcers. The diſtilled oil is one of the moſt powerful emmenagogues, and does excellent ſervice in obſtructions of the uterus and other viſcera, proceeding from a laxity and weakneſs of the veſſels, or from a cold, ſluggiſh indiſpoſition of the juices. Though the virtues of this and the following plant chiefly reſide in their volatile parts; yet the extracts, prepared from each of them, contain a greater ſhare of the virtues of the plant than might be expected; provided they are prepared with ſuitable addreſs. There was a water diſtilled from the freſh leaves of ſavin, but the College has laid it aſide; it was recommended in all nervous caſes, and is ſaid to have been of ſervice for promoting the excluſion of the fœtus; and for forwarding the menſes, and hæmorrhoidal flux.

RUTA.

RUTA. *Rue.*

Has a ſtrong ungrateful ſmell; and bitter, acrid, pungent taſte; it powerfully ſtimulates, attenuates, and deterges; in cold phlegmatic habits, it quickens the circulation, diſſolves tenacious juices; opens obſtructions of the excretory glands; and promotes the fluid ſecretions; is good in putrid and malignant fevers; and in all convulſive caſes. The extract, made by rectified ſpirit of wine, contains its whole virtues. Water elevates its peculiar flavour and warmth; but loſes its bitterneſs, and a conſiderable ſhare of its pungency.

Acetum Rutaceum, Vinegar of Rue, is an infuſion of the leaves of rue and ſcordium *aa* two handfuls, juniper berries, and angelica *aa* ℥2, zedoary and ſeville orange peel *aa* ℥1 in lb.8 of beſt vinegar, for a month; then the vinegar is ſtrained off for uſe. It is not kept in the ſhops; but is a good medicine to procure a ſweat, upon the threatening of a fever, or upon a ſurfeit: it may be given from half a ſpoonful to two or three, in any convenient warm liquor; if the patient is kept warm with cloaths, it ſeldom fails to procure a ſweat. There is a *conſerve*, made from the leaves of rue, kept in the ſhops; it is given in crudities of the *primæ viæ*; promotes digeſtion; is good in hyſteric diſorders; gently ſtimulates the ſolids; attenuates viſcid juices; and excites the natural ſecretions: the doſe is from ʒ to ℥ſs. There was a water diſtilled from the freſh leaves of rue, cohobated from freſh parcels; it poſſeſſes the whole ſmell, and a great part of the pungency of the rue; is recommended in epilepſies, and hyſteric paſſions, for promoting perſpiration, and other natural ſecretions; but is now neglected by the College.

GUMMI.

ASAFOETIDA. *Ditto.* D. gr. 10 to ʒ1.

Is the concrete juice of a plant, growing in *Perſia*, of a pale reddiſh-yellow colour; has a ſtrong fœtid ſmell; and a bitter, acrid, biting taſte: it is one of the ſtrongeſt of the fœtid gums; is conſiderably antiſeptic; is much uſed in all nervous caſes; promotes the fluid ſecretions; good in flatulent cholics; and is beſt adminiſtered in form of pills.

GALBANUM. *Ditto.*

Is the concrete juice of an *African* plant; is ſemipellucid, ſoft, and tenacious; has a ſtrong and ſomewhat unpleaſant ſmell, and a bitter warm taſte;

agrees in virtue with gum ammoniac; but is accounted leſs efficacious in aſthmas, but more ſerviceable in hyſteric caſes. The beſt diſſolvent for galbanum, is two parts of ſpirit of wine, and one of water.

Myrrha. *Myrrh.* D. ℈1 to ʒ1.

Is a concrete, gummy, reſinous juice, brought from the *Eaſt Indies*, in globes or drops, of various colours and magnitudes; the beſt is of a brown, or reddiſh yellow colour, ſomewhat tranſparent; has a light, pungent, bitter, and ſomewhat nauſeous taſte, with an aromatick flavour, and a ſtrong, not diſagreeable ſmell. This aromatic bitter, warms and ſtrengthens the viſcera; diſſolves thick tenacious juices; promotes a diaphoreſis, and all the fluid ſecretions in general: is of excellent uſe in languid caſes, diſeaſes from ſimple inactivity, and in thoſe female diſorders, proceeding from a cold, mucous, ſluggiſh indiſpoſition of the humours, ſuppreſſion of the uterine diſcharges, cachexies, aſthmas, and in all caſes, where the lungs and thorax are oppreſſed with viſcid phlegm; it wonderfully reſiſts putrefaction in any part of the body; is of great ſervice in putrid, malignant, and peſtilential fevers, and in the ſmall pox, whoſe irruption it promotes: good in tickling defluctions of rheum, and catarrahs; kills worms, and is uſeful in all hyſteric caſes; cleanſes and ſtrengthens the womb; is an excellent cleanſer of the teeth, and preſerves the gums from conſuming. it is outwardly uſed in dreſſings for ulcers, *&c.* Rectified ſpirit extracts the fine aromatic flavour and bitterneſs of the drug, and elevates little of either in evaporation; diſtilled with water, it raiſes a conſiderable quantity of a ponderous eſſential oil, reſembling in flavour the drug itſelf.

Gum. Ammoniacum. *Gum Ammoniac.* D. ℈1, to ʒ1.

Is a concrete, gummy, reſinous juice, brought from the *Eaſt Indies*; of a milky colour, which, upon being expoſed to the air, changes into a yellow; has a nauſeous ſweet taſte, followed by a bitter; has ſomewhat of the ſmell of galbanum, though more grateful; is an excellent diobſtruent; opens and deterges obſtructions of the abdominal viſcera; promotes the menſtrual evacuations; deterges the pulmonary veſſels; is of great ſervice in aſthmas, from viſcid phlegm: diſſolved in vinegar of ſquills, it proves a medicine of great efficacy; good in all obſtinate colics from viſcid matter, lodged in the inteſtines; and in all nervous caſes: externally, it ſoftens and ripens hard tumours, and

reſolves ſchirrous ſwellings; and internally taken, it reſolves ſchirrous tumours of the liver, ſpleen or myſentery; is particularly uſeful in preventing the undue motion of the nervous fluid; and is good in all nervous caſes, eſpecially thoſe called hyſterical: it likewiſe purges bile.

SAGAPENUM. D. gr. 3 to ʒſs.

Is a concrete juice brought from *Alexandria*; clear like horn, of a pale yellow colour, diſagreeable ſmell, hot and biting taſte; is an uſeful aperient diobſtruent; opens obſtructions of the viſcera; good in all hyſteric diſorders, from a deficiency of the menſtrual purgations; deterges the pulmonary veſſel; therefore does good in aſthmas, when the lungs are oppreſſed with viſcid phlegm; purges pituitous humours from the head and ſtomach.

OPOPANAX. D. ℈i to ʒi.

Is a concrete, gummy, reſinous juice, brought from *Turky* and the *Eaſt-Indies*; of a reddiſh yellow colour; has a peculiar ſtrong ſmell, and bitter, acrid, ſomewhat nauſeous taſte; is attenuating and aperient; good in hypochondriacal and hyſterical diſorders, obſtructions of the abdominal viſcera; and in ſuppreſſions of the menſes from a ſluggiſhneſs of mucus humours, and want of due elaſticity in the ſolids; given to the quantity of ʒj, it purges pituitous humours.

BDELLIUM.

Is a gummy, reſinous, concrete juice, brought from *Arabia* and the *Eaſt-Indies*; of a dark, reddiſh, brown colour, ſomewhat tranſparent, like glue; has a hot, diſagreeable ſmell, and bitter taſte; is recommended as a ſudorific, diuretic, and uterine; but is chiefly uſed in external applications for maturating tumours, and ſoftening indurations of the nervous parts.

RADICES.

ARISTROLOCHIA. *Birthwort.* D. ℈i to ʒ2.

Brought from *Spain*, and the ſouth of *France*; has an aromatic ſmell; warm, bitter taſte; heats, ſtimulates, and attenuates viſcid phlegm; and promotes the fluid

fluid ſecretions; is celebrated for removing obſtructions of the menſes; uſed externally it deterges and ſuppurates.

Brionia. *Briony.* D. 3ſs to 3i.

Has a ſtrong diſagreeable ſmell; a nauſeous, bitter, acrid, biting taſte; is a ſtrong irritating cathartic; and, as ſuch, has done good in maniacal caſes, in ſome kinds of dropſies, and in ſeveral chronical diſorders, where a quick ſolution of viſcid juices, and a ſudden ſtimulus on the ſolids were required: the extract by water acts more mildly, yet is very penetrating; therefore good in grumous collections and coagulations, and in arthritic pains and tumours.

Bellis. *Daiſy.*

The leaves have a glutinous, ſubſaline, rough taſte; are detergent, reſolvent, aperient, moderately aſtringent and uterine; are a good vulnerary in aſthmas and hectic fevers, and diſorders from drinking cold liquor, when the body has been heated; are antiſcorbutic and reſolve coagulated blood in hypochondriacal diſorders; good in pleuriſies and other fevers, infuſed in vinegar.

Casumunar.

Is brought from the *Eaſt Indies*; has an aromatic ſmell like ginger, a warm bitter taſte; is a good ſtomachic and carminative; was formerly recommended in all nervous caſes, epilepſies, palſies, loſs of memory, *&c.*

Fuligo Ligni. *Wood Soot.*

Is a concrete, of a ſhining black colour, diſagreeable ſmell, and bitter, acrid, nauſeous taſte; ſometimes it is preſcribed in hyſteric caſes, along with the fœtid gums: it differs in quality according to the wood it is produced from.

Borax.

Is a ſaline ſubſtance, brought from the *Eaſt Indies*; of a colour partly white and partly green. The original and compoſition of this ſalt are as yet unknown; nor are its medical virtues well underſtood; ſome look upon it as an aperient neutral ſalt; others think that it is an alkaline abſorbent; and ſome

will have it to be a ſtiptic earth ; but its virtues are ſo ſmall, as neither to deſerve much notice, nor any diſpute about them. It has been preſcribed as an emmenagogue, and a promoter of delivery ; but practitioners often complain of its not anſwering their intentions : it is uſually exhibited with aromatics and other ſubſtances, to which perhaps it owes its good effects, more than to its own particular virtue.

Sal Sedativus, *Salt of Borax*, (commonly called) *Sedative Salt*. This ſalt is obtained from a ſolution of borax, in warm water with the oil of vitriol, and the mixture evaporated. This ſalt diſſolves in water, and ſpirit of wine, though not very readily in either : it is ſuppoſed to be a mild anodyne to calm the heat of the blood, in burning fevers ; to prevent or remove delirious ſymptoms, and to allay ſpaſmodic affections, whether hypochondriacal, or hyſterical. It may be given in any proper vehicle : it has the taſte of a neutral ſalt ; but when examined by alkali, ſhews itſelf to be an acid.

PRÆPARATA.

OLEA.

L. Oleum, Spiritus, et Sal Fuliginis. *Oil, Spirit, and Salt of Soot.*

They are procured from the ſoot of wood, by diſtillation, in the ſame manner as thoſe of hartſhorn. The volatile ſalt, and ſpirit of ſoot, when ſufficiently purified, agree in quality with thoſe of animal ſubſtances ; ſome prefer them to any other ſalt or ſpirit in nervous complaints, eſpecially in epilepſies ; but there is little reaſon for the preference.

L. E. Oleum ex Foliis Pulegii Essentiale. *Eſſential Oil of the Leaves of Penny Royal.* D. gut. 1 to 5.

This oil reſembles the plant, from which it is diſtilled, in ſmell, taſte, and virtues ; it is good in hyſteric caſes.

L. E. Oleum ex Foliis Rutæ Essentiale. *Eſſential Oil of the Leaves of Rue.* D. gut. 1 to 4.

This oil has a very acrid taſte, and penetrating ſmell, reſembling that of the herb, but is rather more unpleaſant. It is ſometimes, though ſeldom, made

uſe

uſe of in hyſteric diſorders, and in epilepſies, ariſing from a relaxed ſtate of the nerves; and ſome preſcribe it as an anthelminitic.

L. E. Oleum ex Foliis Sabinæ Essentiale. *Eſſential Oil of the Leaves of Savin.*

This oil is a celerated uterine, and emmenagogue, in cold phlegmatic habits. It is, undoubtedly, a good medicine; though it does not contain the whole virtues of the plant.

AQUÆ.

L. E. Aqua Pulegii Simplex. *Simple Penny Royal Water.*

This water is diſtilled from penny royal leaves; and poſſeſſes, in a conſiderable degree, the ſmell, taſte, and virtues of the penny royal. It is frequently given, with good ſucceſs, in hyſteric caſes.

L. Aqua Pulegii Spirituosa. *Spirituous Penny Royal Water.*

This differs from the ſimple water, in having proof ſpirit for a menſtruum in place of common water; it poſſeſſes a good ſhare of the flavour of the penny royal; and is pretty much in uſe, as a carminative and antihyſteric.

E. Aqua Valerianæ Composita. *Compound Valerian Water.*

This water is diſtilled from the following ingredients, of wild valerian root lb. 1ſs. ſeeds of lovage lb.ſs. penny royal leaves ℥4, the tops of ſavin ℥2, digeſted for two days in two gallons of *French* brandy, from which two gallons of water is diſtilled. This water is deſigned by the College to ſupply the place of *Aqua Brioniæ Compoſita*, *Compound Briony Water*, which is diſtilled from the following ingredients, of briony roots lb.1, wild valerian root ℥4, penny royal, rue *aa* lb. ſs. mugwort leaves, fever-few flowers, ſavin tops, *aa* ℥1, orange peel, freſh lovage ſeeds, *aa* ℥2, cut, bruiſed, and infuſed in two gallons and half of *French* brandy for four days; then two gallons and half of water are diſtilled. Both theſe waters are good in epilepſies, and give a temporary relief in the languors of hyſterical and hypochondriacal people; but their unpleaſant flavour renders them exceptionable, either taken ſingly, or as a vehicle.

TINCTURÆ,

TINCTURÆ, &c.

L. Tinctura Foetida. *Fœtid Tincture.* D. gut. 10 to 40.

This tincture is made of asafœtida ℥4, digested in lb.2*m* of rectified spirit of wine. It possesses the whole virtues of the asafœtida.

L. E. Tinctura Myrrhae. *Tincture of Myrrh.* D. gut. 15 to ℥1.

This tincture is obtained by digesting myrrh, in a gentle heat, in proof spirit, and then straining off the tincture: the *London* College directs the proportion to be of myrrh ℥3, and of proof spirit lb.2 *m*; the *Edinburgh* College allows only of myrrh ℥3ss to lb.1 of rectified spirit of wine. This tincture is used both internally and externally. It is in great esteem amongst the surgeons, for cleansing foul ulcers, and to exfoliate carious bones; internally it warms the habit; attenuates viscid juices; strengthens the solids; opens obstructions, particularly those of the uterine vessels; resists putrefaction; proves a very useful medicine in all languid cases, proceeding from simple inactivity, as in the female disorders, occasioned by an aqueous mucus, sluggish indisposition of humours, and a relaxation of the vessels: is also particularly serviceable in the *fluor albus*, and such disorders as arise from a like cause.

E. Tinctura Myrrhæ et Aloes. *Tincture of Myrrh with Aloes.*

This tincture is obtained thus, of myrrh ℥3ss, hepatic aloes ℥1, digested in a sand heat, for six days, in rectified spirit of wine lb.2, then strained off for use. The myrrh should be digested with the rectified spirit four days before the aloes is added. This tincture is chiefly designed for chirurgical dressings. Some venture to give it internally in doses of a few drops, from gut. 5 to 15, properly diluted, without discovering any but salutary effects from it.

Oleum Myrrhæ, *Oil of Myrrh*, is fœtid after the first distillation, but may be rectified by a second distillation with water, which makes it much pleasanter for use; is a good diuretic and diaphoretic; but is seldom prescribed, and is entirely neglected by the College; externally used, it brings bad ulcers to a kind of suppuration. It may be given in any proper vehicle, from gut. 1 to 24.

Oleum

Oleum Myrrhæ per diliquium, Oil of Myrrh by reſolution, is only uſed externally to take off blemiſhes, and ſpots in the ſkin; and is particularly good for ſores and chopped nipples. The College pays no regard to it.

L. E. Tinctura Fuliginis. *Tincture of Soot.* D. gut. 10.

This tincture is prepared of wood ſoot ℥2, aſafœtida ℥1, digeſted in lb.2 *m* of proof ſpirit, and then ſtrained; the *Edinburgh* College prepares this tincture of wood ſoot ℥1, aſafœtida ℥ſs, digeſted for three days in lb.1 of *French* brandy, and then ſtrained. This tincture is not only good in hyſteric caſes, but likewiſe in epilepſies, and other nervous diſorders. It is ſimilar to the hyſteric tincture, which has the addition of a little myrrh.

L. Spiritus Volatilis Foetidus. *Volatile fœtid Spirit.* D. gut. 5 to 30.

This ſpirit is obtained by diſtillation, from lb.1ſs of any fixed alkaline ſalt, ſal ammoniac lb.1, aſafœtida ℥4, and lb.6 *m* of proof ſpirit. This ſpirit is undoubtedly a very elegant antihyſteric.

L. Elixir Myrrhæ Compositum. *Compound Elixir of Myrrh.* D. gut. 5 to 40.

This elixir is obtained of ſavin ℥1, tincture of caſtor lb.1 *m.* tincture of myrrh lb.ſs *m*, digeſted together, and then ſtrained off for uſe. This is an improvement of a preparation under the name of *elixir uterinum.* It is a medicine of great efficacy in all uterine obſtructions, and in hypochondriacal caſes; promotes the menſes and the expulſion of the fœtus and lochia; is alſo good in many kinds of convulſions; and cures the fits of children: it may be given in penny royal water, or in any other ſuitable vehicle.

Elixir Hypochondriacum. *Elixir againſt Melancholy.* D. gut. 10 to 40.

This elixir is prepared of the roots of valerian, caſumunar *aa* ℥2, black hellebore ℥4, digeſted twenty-four hours in rectified ſpirit of wine lb.2, to the ſtrained liquor are added of ſaffron ℥1, ſalt of ſteel ℥ſs, diſtilled vinegar ℥8, digeſted all together for ſome days, and then filtrated for uſe. This is a moſt efficacious medicine in all melancholy hypochondriacal affections; it keeps the body a little laxative, and operates by urine, and will, in time, ſcour the glands, and the moſt remote receſſes of the body, of thoſe adheſive ſlimy humours, which ſpoil the

the motion of the ſpirits, and lay a load upon the principal wheels of the animal machine; from whence ariſe thoſe perturbations of mind, and interruptions of reaſoning; which put a perſon in a ſtate little better than that of diſtraction. It is alſo good in hyſterical diſorders, and ſeldom fails of removing their cauſe. If a little ſalt of amber was added, it would be more efficacious, though a little more unpleaſant. It may be taken in any convenient vehicle. The College has not yet received it.

L. Lac Ammoniaci. *Milk of Ammoniacum.* D. ℥1 to 2.

This is prepared of gum ammoniac ʒ2, ground in a mortar with ſimple penny royal water lb.ſs *m*, till the gum is diſſolved. This is good for attenuating tough phlegm, and for promoting expectoration in humoural aſthmas, coughs, and obſtructions of the viſcera.

PULVERES.

Pulvis ad Epilepticos de Gutteta dictus. *Antiepileptic Powder.* D. gr. 10 to ʒ2.

This powder is made up of the roots of white dittany, peony, wild valerian, and miſletoe of the oak *aa p. æ.* mixed and made into a powder. The College, in a late review, have entirely neglected this powder. The valerian root is the article moſt to be truſted to; the other two are far inferior to it; and do not contribute a proportionable ſhare of efficacy to the medicine; but ſerve only to increaſe its bulk. Some prepare this powder thus, of white dittany, miſletoe of the oak, contrayerva, *Virginian* ſnake root, peony roots, hartſhorn calcined, *aa* ʒ2, wild valerian root ʒ3, mixed altogether into a powder; to which may be added, at pleaſure, of muſk gr. 5. Others prepare it thus, of wild valerian and peony roots *aa* ℥1, ſeeds of rue, myrrh, caſtor, white amber *aa* ℥ſs, native cinnabar ℥2, made into a powder. All theſe powders are good in convulſions of children, and adults. The laſt, however, is the moſt efficacious compoſition, for the purpoſes expreſſed in its title; and will do wonders in all nervous caſes, if carefully continued for ſome time: it is much to be relied upon in childrens convulſions.

L. Pulvis e Myrrha Compositus. *Compound Powder of Myrrh.* D. ʒ1 to ʒ2.

This powder is made up of rue leaves, dried dittany of crete, myrrh, *aa* ℥1ſs, aſafœtida, ſagapenum. *Ruſſia* caſtor, opopanax, *aa* ℥1, reduced to powder, and

mixed

mixed together. This is a reform of the *trochiſci e myrrha*. It may be given two or three times a day againſt hyſterics, and uterine obſtructions: it is likewiſe ſaid to forward delivery. The *Edinburgh* College had a powder called *pulvis ad partum, powder to promote delivery*: it was made up of borax ℥ſs, caſtor, ſaffron, *aa* 3ſs, with the oils of cinnamon gut. 8, and amber gut. 6, beat together. Some, in preparing this powder, uſe cinnamon in place of caſtor; others add mint and cummin ſeeds. It has been long eſteemed for the purpoſes expreſſed in its title; but its real efficacy has not been ſufficiently determined. The College has laid it aſide; though it is frequently made uſe of by our midwifes, for the purpoſes expreſſed in its title.

PILULÆ.

E. Pilulæ Foetidæ. *Fœtid Pills.* D. ℈i to 4.

Theſe pills are made up of aſafœtida 3ſs, camphor ʒſs, beat together, to which are added, *Ruſſia* caſtor 3ſs, oil of hartſhorn gut. 24. They are ſometimes prepared with many more ingredients; as aloes, troches of ſulphur, opopanax, ammoniacum, ſagapenum, myrrh, ſeeds of rue, *aa* ʒʒ, ſcammony, aſafœtida, ʒʒ, hermodactyls ʒ2, ginger 3ſs, ſpikenard, cinnamon, ſaffron, caſtor, *aa* 3ı, euphorbium prepared ℈ı, oil of amber rectified ʒſs, mixed all together, and made up with the ſpirit of buckthorn. The laſt method of making up theſe pills includes ſupernumerary ingredients. They are very ſerviceable in arthritic pains, cutaneous foulneſſes, and in all nervous and hyſteric caſes; are a well contrived purge for all kinds of humours, which obſtruct the nerves: they carry their effects to the remoteſt parts, and clear away watery and pituitous humours, from all the glands and capillaries, and particularly thoſe mucous foulneſſes, that frequently diſorder the womb; are a uſeful purge in all diſtempers of the head, as apoplexies, epilepſies, palſies, and hypochondriacal and ſplenetic affections; promote the uterine purgations; and are alſo good in rheumatiſms, ſchophulas, and gout: but, to anſwer theſe purpoſes, they ought to be given frequently, and in ſmall doſes, as alteratives, that they may not run off too faſt by ſtool; for alteratives operate in the blood veſſels, in the ſame manner, as cathartics do in the bowels.

L. E. Pilulæ Gummosæ. *Gum Pills.* Gr. 10 to ℈ıſs.

Theſe pills are made up of galbanum, opopanax, myrrh, ſagapenum, *aa* ℥ı, aſafœtida ℥ſs, with a ſufficient quantity of ſyrup of ſaffron. The *Edinburgh*

the motion of the ſpirits, and lay a load upon the principal wheels of the animal machine; from whence ariſe thoſe perturbations of mind, and interruptions of reaſoning; which put a perſon in a ſtate little better than that of diſtraction. It is alſo good in hyſterical diſorders, and ſeldom fails of removing their cauſe. If a little ſalt of amber was added, it would be more efficacious, though a little more unpleaſant. It may be taken in any convenient vehicle. The College has not yet received it.

L. Lac Ammoniaci. *Milk of Ammoniacum.* D. ℥1 to 2.

This is prepared of gum ammoniac ʒ2, ground in a mortar with ſimple penny royal water lb.ſs *m*, till the gum is diſſolved. This is good for attenuating tough phlegm, and for promoting expectoration in humoural aſthmas, coughs, and obſtructions of the viſcera.

PULVERES.

Pulvis ad Epilepticos de Gutteta dictus. *Antiepileptic Powder.* D. gr. 10 to ʒ2.

This powder is made up of the roots of white dittany, peony, wild valerian, and miſletoe of the oak *aa p. æ.* mixed and made into a powder. The College, in a late review, have entirely neglected this powder. The valerian root is the article moſt to be truſted to; the other two are far inferior to it; and do not contribute a proportionable ſhare of efficacy to the medicine; but ſerve only to increaſe its bulk. Some prepare this powder thus, of white dittany, miſletoe of the oak, contrayerva, *Virginian* ſnake root, peony roots, hartſhorn calcined, *aa* ʒ2, wild valerian root ʒ3, mixed altogether into a powder; to which may be added, at pleaſure, of muſk gr. 5. Others prepare it thus, of wild valerian and peony roots *aa* ℥1, ſeeds of rue, myrrh, caſtor, white amber *aa* ℥ſs, native cinnabar ℥2, made into a powder. All theſe powders are good in convulſions of children, and adults. The laſt, however, is the moſt efficacious compoſition, for the purpoſes expreſſed in its title; and will do wonders in all nervous caſes, if carefully continued for ſome time: it is much to be relied upon in childrens convulſions.

L. Pulvis e Myrrha Compositus. *Compound Powder of Myrrh.* D. ʒ1 to ʒ2.

This powder is made up of rue leaves, dried dittany of crete, myrrh, *aa* ℥1ſs, aſafœtida, ſagapenum. *Ruſſia* caſtor, opopanax, *aa* ℥1, reduced to powder, and mixed

mixed together. This is a reform of the *trochiſci e myrrha*. It may be given two or three times a day againſt hyſterics, and uterine obſtructions: it is likewiſe ſaid to forward delivery. The *Edinburgh* College had a powder called *pulvis ad partum, powder to promote delivery*: it was made up of borax ℥ſs, caſtor, ſaffron, *aa* ʒiſs, with the oils of cinnamon gut. 8, and amber gut. 6, beat together. Some, in preparing this powder, uſe cinnamon in place of caſtor; others add mint and cummin ſeeds. It has been long eſteemed for the purpoſes expreſſed in its title; but its real efficacy has not been ſufficiently determined. The College has laid it aſide; though it is frequently made uſe of by our midwifes, for the purpoſes expreſſed in its title.

PILULÆ.

E. Pilulæ Foetidæ. *Fœtid Pills.* D. ℈i to 4.

Theſe pills are made up of aſafœtida ʒiſs, camphor ʒſs, beat together, to which are added, *Ruſſia* caſtor ʒiſs, oil of hartſhorn gut. 24. They are ſometimes prepared with many more ingredients; as aloes, troches of ſulphur, opopanax, ammoniacum, ſagapenum, myrrh, ſeeds of rue, *aa* ʒs, ſcammony, aſafœtida, ʒ3, hermodactyls ʒ2, ginger ʒiſs, ſpikenard, cinnamon, ſaffron, caſtor, *aa* ʒ1, euphorbium prepared ℈i, oil of amber rectified ʒſs, mixed all together, and made up with the ſpirit of buckthorn. The laſt method of making up theſe pills includes ſupernumerary ingredients. They are very ſerviceable in arthritic pains, cutaneous foulneſſes, and in all nervous and hyſteric caſes; are a well contrived purge for all kinds of humours, which obſtruct the nerves: they carry their effects to the remoteſt parts, and clear away watery and pituitous humours, from all the glands and capillaries, and particularly thoſe mucous foulneſſes, that frequently diſorder the womb; are a uſeful purge in all diſtempers of the head, as apoplexies, epilepſies, palſies, and hypochondriacal and ſplenetic affections; promote the uterine purgations; and are alſo good in rheumatiſms, ſchophulas, and gout: but, to anſwer theſe purpoſes, they ought to be given frequently, and in ſmall doſes, as alteratives, that they may not run off too faſt by ſtool; for alteratives operate in the blood veſſels, in the ſame manner, as cathartics do in the bowels.

L. E. Pilulæ Gummosæ. *Gum Pills.* Gr. 10 to ℈iſs.

Theſe pills are made up of galbanum, opopanax, myrrh, ſagapenum, *aa* ℥i, aſafœtida ℥ſs, with a ſufficient quantity of ſyrup of ſaffron. The *Edinburgh*

College directs them to be made of gum ammoniacum 3i, aſafœtida, *Ruſſia* caſtor, myrrh, *aa* ℥ſs, oil of amber 3ſs, with a ſufficient quantity of ſyrup of oranges. Gum pills are deſigned as antihyſterics and emmenagogues; and very well calculated they are to anſwer theſe intentions: they may be taken every night, or oftener; and are eaſily compounded with cathartics, as particular caſes require. Theſe differ little from *pilulæ hyſtericæ*, *hyſteric pills*, which are made up of aſafœtida, galbanum, *aa* 3ſs, myrrh 3ß, caſtor 3iſs, aſarum root, long birthwort, ſavin motherwort, and calamin, *aa* 3i, dittany 3ſs, with a ſufficient quantity of compound elixir of myrrh. They are, indeed, well contrived to anſwer the purpoſes their title denotes: they allay vapours and convulſions; promote the menſes; aſſiſts delivery; and are uſeful in curing diſeaſes of thoſe parts.

FORMULÆ EXTEMPORANEÆ.

℞ Aq. pur. ℥iſs tinct. cantharid. gut. 20, ſyr. croci 3i, f. hauſtus.

℞ Tinct. ſacra. ſeorſum ſumend.

℞ Aq. pulegij ſimp. — fœnicul. *aa* ℥ß, ſyr. e flor. paralyſ. ℥i, tinct. caſtor, 3i m.

℞ Aq. caſtor. — pulegij ſimp. *aa* ℥ß, ſyr. e meconio ℥i, caſtor. ℈i, aſ. fœtid. gr. 5 m.

℞ Aq. fœnicul. — cort. aurant. ſimp. *aa* ℥ß, ſpt. fuligin. ſpt. ſal. ammon. *aa* 3i, aſ. fœtid. gr. 10, ſacchar. q. ſ. ut f. julep.

℞ Aq. menth. piper. ſimp. — ſem. aneth. *aa* ℥ß, ſpt. lavend. comp. ſpec. aromatic. *aa* 3i, ſyr. caryophyl. rub. ℥ß m.

℞ Aſ. fœtid. ℥iſs aq. menth. vulg. ſimp. ℥ß, ol. c. c. gut. 20, ſacchar. alb. 3iß.

℞ Aq. roſar. damaſ. ℥vi, ſpt. vol. aromatic. ℥iſs, moſch. ℈i, ſacchar. alb. 3ß m.

℞ Rad. valerian. ſylv. ℥ii, roriſ. marin. ſalviæ *aa* ℥ß, aq. cinnamom. ſpt. cum aceto ℥ß, — commun. lb.4, infunde per totam noctem, deinde cola doſ. ℥ß, bis in die.

℞ Aſ,

℞ Aſ. fœtid. ʒ2, in aq. caſtor. lb.iſs ſolut.

℞ Chalyb. rub. præp. ʒ8, rad. eryngij enul. campan. *aa* ʒiſs, ſantal. citrin. ʒ1, c. c. pulv. coral. rub. *aa* 36, caryophyl. macis, cinnam. z.z.33, flor. roriſ. marin. geniſt. *aa* m. 2. vin. alb. lb.6, infunde per 6 dies deinde cola.

℞ Chalyb. rub. præp. ℈4, rutæ pulegij *aa* m. 2 rad. pæoniæ caſamunar. *aa* 31, croci ʒ2, infunde in vin. canar. per 14 dies, deinde cola; doſis ʒ2 vel 3, bis in die.

℞ Cinnabar. nativ. in mortario marmoreo bene trit. ʒſs, cui adde ſacchar. pureſſ. ʒiſs confect. alker. q. ſ. ut f. elect.

℞ Aloes ſocot. ſapon. dur. *aa p. æ.* mel. q. ſ. ut f. pilulæ doſ. 3ſs.

℞ Terr. limat. myrrh. ſapon. dur. *aa* ℈1, f. pil. doſ. 3ſs.

℞ Terr. limat. extr. gentian. *aa* 31, f. pil. med. cap. 4, omni nocte.

℞ Rad. valerian. ſylv. pulv. p. 2, cinnab. antim. p. 1 ſyr. zingib. q. ſ.

℞ Sal. abſinth. 3ſs, ſpt. vitriol. ten. gut. 30, vel q. ſ. ad ſaturationem plenam, adde aq. menth. vulg. ʒiſs — alexet. ſpt. cum acet. ʒ2, ſal. ſuccin. caſtor. ruſſ. *aa* ℈ſs ſyr. balſ. 31 M.

℞ Aq. puleg. ſimp. lb.1, — ſpt. ℈4, ſacchar. alb. ʒ1 m.

℞ Rubig. chalyb. præp. ʒ1, extract. gentian. q. ſ. pil. 48.

℞ Aſ. fœtid. q. v. tinct. fulig. q. ſ. m.

℞ Elix. aloes ʒ2, tinct. mart. in ſpt. ſal. 36 m.

℞ Aſ. fœtid. ſal. vol. ammon. *aa* ʒ1, fulig. lign. ʒ2, ſpt. vinoſ. rectif. lb.2, m. & degere leni calore.

℞ Elix. aloes ſpt. ſal. ammon. dulc. *aa* ʒſs doſ. gut. 3 in vehiculo quovis.

℞ Pil. rufi boracis *aa* 31, ſyr. croci q. ſ. ut f. pil. doſ. ℈1.

℞ Sal. mart. ʒ2, conſerv. flavid. aurant. ʒ1, ſyr. zingib. q. ſ. f. elect.

℞ Sperm. cet. ℈2, caſtor. croci *aa* gr.3, ſacchar. gr. 10, m. f. pulv.

℞ Myrrhæ caſumun. *aa* gr. 10, caſtor. ſal. ſuccin. *aa* gr. 5, m. f. pulv.

℞ Pulv. ſabin. myrrh. *aa* gr. 10, caſtor. croci *aa* gr. 4, gran. paradiſ. gr. 2 m.

℞ Pulv. rad. valerian. ℈1, caſtor croci *aa* gr. 5, aſ. fœtid. gr. 3, m. f. pulv.

℞ Sal. martis myrrh. gr. 8, croci caſtor. *aa* gr. 5, ol. ſabin. gut. ſacchar. pur. ℈ſs m. f. pulv.

℞ Boracis ſal. mart. croci *aa* gr. 5, ſacchar. pur. ℈1, ol. puleg. gut. 1, m. f. pulv.

℞ Pulv. rad. hellebor. nig. gr. 10, ſabin. caſtor. croci *aa* gr. 5, ſal. ſuccin. gr. 4, ut f. pulv.

℞ Boracis gr. 10, ſpec. aromat. croci *aa* gr. 5, ſal. ſuccin. moſch. camphor. *aa* gr. 3, m. f. pulvis.

℞ Chalyb. rub. præp. 36, rad. zingib. ʒ1, conſ. flav. cort. aurant. ʒ3, ſyr. e cort. aurant q. ſ. ut f. electarium.

℞ Pulv. rad. hellebor. nig. extr. fol. ſabin. pulv. e myrrh. comp. *aa* 34, canel. alb. 32, ſyr. e cort. aurant. q. ſ. f. elect.

℞ Conſ. fol. rutæ ʒ1, elect. e bacc. lauri ʒſs, gum. ammon. 32, tinct. caſtor. q. ſ. pul. myrrh. croci *aa* 31, ſyr. e flor. paralyſ. q ſ. f. elect.

℞ Conſ. ſummitat. abſinth. marit. ʒ2, elect. e bacc. lauri 34, pulv. e myrrh. comp. 32, croci ℈1, ſyr. caryophyl. rub. q. ſ. ut f. elect.

℞ Conſ. ſum. abſinth. mar. —roris marin. ſal. mart. *aa* 32, croci ℈iſs, pulv. cardamom. ℈1, ſyr. zingib. q. ſ. ut f. elect.

℞ Conſ. ſum. abſinth. marin. ʒ2, pulv. hellebor. nig. 33, ſal. tartar. 32, aſ. fœtid. (ſolut. in tinct. caſtor. q. ſ.) ℈1, ſyr. ex alth. q. ſ. ut f. elect.

℞ Conſ. flor. roriſmarin. — ſummitat. abſinth. marit. — fol. cochlear. hort. *aa* 36, ſpec. aromatic. pulv. winterian. cort *aa* 31, ſal. ſuccin. ℈1, chalyb. cum ſulph. præp. 33, ſyr. zingib. q. ſ. ut f. elect.

℞ Conſerv. fol. roriſmarin. ʒ1, — flav. cort. aurant. 34, elect. e bacc. lauri 32, pulv.

pulv. hellebor. nig. — pyreth. rad. *aa* ʒ2, ſal. ſuccin. ʒ2, croci ϑ2, gum. ammon. (in tinct. caſtor. ſolut. q. ſ.) ʒ2, ſyr. ex althæa q. ſ. f. elect.

℞ Galbar. aſ. fœtid. gum. ammon. *aa* ʒ1, caſtor. camphor. ſal. ſuccin. *aa* gr. 15, ol. ſuccin. gut. 5, balſ. peruvian. q. ſ. f. pil. 31, N° 12.

℞ Pulv. ſabin. ʒ2, myrrh. galban. gum. ammon. caſtor. *aa* ʒ2, ſyr. e cort. aurant. q. ſ. ut f. pil. mediocres; doſ. 3, bis in ſeptiman.

℞ Aſ. fœtid. ʒ1, flor. martial. ϑiſs, ol. ſuccin. gut. 8, balſ. peruv. q. ſ. f. pil. doſ. 3 vel 4, ter vel quater in die.

℞ Aſ. fœtid. gum. ammon. myrrh. aloes chalyb. rubig. præp. ext. rad. gent. *aa* ϑ1, ſyr. zingib. q. ſ. f. pil. 24, doſ. 3, bis in die.

℞ Galban. ʒ1, ſal. mart. ϑiſs, aſ. fœtid. ſpec. aromatic. *aa* ϑ1, tinct. myrrh. q. ſ.

℞ Gum. ammon. ext. rad. gentian. ſal. mart. myrrh. *aa* ℥1, ſyr. roſar. ſolutiv. q. ſ.

SECTION

SECTION III.

CHAP. I.

Of CORROBORATIVES *or* STRENGTHENERS.

CONTAINING

AGGLUTINANTS ASTRINGENTS *and* ABSORBENTS.

UNDER this head we would be underſtood to mean ſuch things as confirm the ſtamina, and maintain the ſolids, in a condition to exert themſelves into action, on all proper occaſions, with the greateſt force and vigour.

The continual waſte, which conſtant motion makes in the conſtitution, if there were not frequent and proper ſupplies, would ſoon wear the body quite out. The attrition and abraſion of the circulating fluids would quickly carry away the canals, in which they circulate; if ſomething was not furniſhed, and conveyed to them; ſuited to fall into, and adhere with them; and ſo recruit what is waſhed off. And thoſe particles muſt be moſt diſpoſed to anſwer that end, whoſe adheſions are greateſt, when once they come into contact: ſuch are thoſe particles of the bodies we call glutinous; which eaſily form themſelves into jellies, and ſuch like conſiſtencies. For the parts of ſuch bodies are very light, by reaſon of the over-proportion of their ſurfaces to their ſolidities, whereby their motion is more languid, when in circulation; and when once they ſtop, their coheſions will be ſo much the ſtronger, with whatſoever they fall into contact.

Medicines of this tribe are therefore of great ſervice in hectics, when the quick motion of a thin ſharp blood wears away the ſubſtance of the body, inſtead of nouriſhing it; for they not only retard the inordinate motion, but give ſuch a weight and conſiſtence to the juices, as fit them for nouriſhment.

There

There are likewiſe other cauſes, which may weaken the ſolids by admitting, or occaſioning them to relax too much. Whatſoever therefore acts as a ſtimulus, and criſps and corrugates the fibres into a more compacted tone, which moſt auſtere bodies do, will remove ſuch weakneſs, and increaſe the ſtrength; and as too much moiſture may contribute to ſuch a relaxation, whatſoever has the quality of abſorbing and drying up ſuch ſuperfluous humidity, may deſerve, though accidentally, to come under this denomination; which contains all that paſs under the name of ſweetners, or correctors of the acrimony of the fluids. The acrimony of our fluids is corrected either by breaking the points, and aſperſity of their particles, or by abſorbing them by ſoft and porous bodies. Let this ſerve for a general explanation of the two ſubſequent claſſes, *viz.* agglutinants and aſtringents. We ſhall hereafter be a little more particular about abſorbents.

AGGLUTINANTS.

FOLIA.

Bursa Pastoris. *Shepherd's Purſe.*

Is aſtringent and glutinous; good in diarrhæas, dyſenteries, uterine fluors, bleeding at the noſe, and ſpitting of blood.

Lamium Album. *White Archangel.*

Is ſoft, lubricating, and ſtrengthening; particularly celebrated in uterine fluors, and other female weakneſſes; alſo in heat and difficulty of urine, and diſorders of the lungs.

Horminum Sativum. *Garden Clary.*

Has a warm, bitter, pungent, ſtrong, and ſomewhat diſagreeable taſte; good in the *fluor albus*, whites, and other female weakneſſes, in hyſteric diſorders, and flatulent cholics.

Plantago Latifolia. *Broad-leaved Plantane.*

Is lightly aſtringent, and good in all hæmorrhages. *Extractum Plantaginis*, kept in the ſhops, is a mild aſtringent; and, as ſuch, is ſometimes given in the doſe

doſe of ʒ2 in diarrhæas, and other diſorders, where medicines of this claſs are indicated: the preſent practice, however, holds it in no great eſteeem.

Avena, Oriza, Sago, Triticum. *Oats, Rice, Sago, and Wheat.*

Theſe are all more uſed in food than medicines; gruel made of the firſt, has a ſoft, mucilaginous quality; obtunds acrimony; good in inflammations, coughs, hoarſeneſs, roughneſs and exulcerations of the lungs. Rice affords a uſeful food in diarrhæas, dyſenteries, and other diſorders, from a thin acrimonious ſtate of the juices. Sago is a nouriſhing glutinous food, ſomewhat detergent. None can be ignorant how uſeful an article of food wheat is; the flour or ſtarch prepared from it, forms with water a ſoft viſcid ſubſtance; good in diarrhæas and dyſenters. Bread carefully toaſted and infuſed, or boiled in water, imparts a deep colour, and ſufficiently agreeable reſtringent taſte; good in a lax ſtate of the ſtomach and inteſtines; bilious vomiting and purging, or the cholera morbus.

Casia Lignea. *Caſia Bark.*

Is the bark of an *Indian* tree; has an aromatic flavour, approaching to that of cinnamon, but is more viſcid; when boiled in water, the aromatic part exhales. The diſtilled oil is nearly of the ſame virtue with that of cinnamon. The diſtilled water has an empyreumatic taſte. The glutinous quality of caſia, renders it uſeful in ſome caſes; where ſimple aromatics are leſs proper.

Consolidæ Majoris Radex. *Comfry Root.*

Is black on the outſide, and whitiſh within; full of viſcid glutinous juice; agrees in virtue with the roots of althæa; ſtrengthens and is good in all flûxes, ſeminal weakneſſes, and old gleets, where the virulency is removed.

GUMMI.

Arabicum. *Arabic.* D. ʒi to ʒ2.

Is a concrete gum, brought from *Egypt*; of a pale-yellow colour; its virtues are the ſame with thoſe of gummy and mucilaginous ſubſtances in general; good in hoarſeneſs; in a thin acrimonious ſtate of the juices; and where the mucus of the inteſtines is abraded; and in all fluxes and catarrhs.

Olibanum

OLIBANUM. *Ditto.* D. ℈1 to ʒ1.

Is a gummy reſin, brought from *Turky* and the *Eaſt-Indies*; of a pale-yellow, and ſomewhat reddiſh colour, and moderately warm, pungent taſte; of a ſtrong diſagreeable ſmell; is glutinous, ſtrengthening, and ſomewhat detergent; good in pleuriſies, alvine, and uterine fluxes; and is uſed externally in ſtrengthening plaſters.

SANGUIS DRACONTIS. *Dragon's Blood.*

Is a reſin, brought from the *Eaſt-Indies*, of a red colour, totally diſſolves in pure ſpirit, and expreſſed oil; has no ſmell, but diſcovers a ſmall degree of warmth and pungency in the taſte; is a gentle aſtringent; and, by its glutinous quality, lightly incraſſates the fluids, and ſomewhat ſtrengthens the ſolids; good in ſeminal gleets, fluor albus, and other fluxes and hæmorrhages; uſed externally in ſtrengthening plaſters.

TRAGACANTHA. *Tragacanth.*

Is brought from *Aſia*, *Greece*, *&c.* is ſtronger than either of the foregoing, ʒ1 gives lb.1 of water, the conſiſtence of ſyrup; which ʒ1 of gum arabic will ſcarcely do; it obtunds acrimony; good in coughs, and defluxions of rheum, and catarrhs; diſſolved in rough red wine, is of great ſervice in the whites and ſeminal weakneſſes.

ANIMALIA.

RASURA CORNU CERVI & EBORIS. *Shavings of Hartſhorn and Ivory.*

Have the virtues of this claſs; make good nouriſhing and ſtrengthening gellies; they cool and obtund acrimonious humours; but they have now got a trick of mixing them with bone, inſomuch that it is difficult to buy them in the ſhops without a mixture of bone. The calcination of the hartſhorn renders it one of the pureſt of the abſorbent powders, being perfectly free of any glutinous oily matter, which moſt of the others abound with. *Gelatina Cornu Cervi*, *Hartſhorn Gelly*, is made by boiling of hartſhorn ſhavings lb.ſs with three quarts of water, till one-third is conſumed; to the ſtrained liquors, are added of white ſugar candy ʒ6, mountain wine ʒ4, orange or lemon juice ʒ1; and the whole is boiled to the conſiſtence of a gelly; it thickens the fluids, and defends the ſolids from

them, when ſharp and corroſive; good therefore in a thin acrimonious ſtate of the juices, where the natnral mucus of the inteſtines is abraded: animal glues and gellies have the general qualities of the vegetable gums and mucilages, with this difference, that the former are more nutrimental, and apt to run into a putrid ſtate; the animal kind are changed by fire into a volatile alkaline ſalt of fœtid oil; the vegetable into an acid liquor, and ſmall portion of leſs fœtid oil.

MINERALIA.

Lapis Hoematites. *Blood Stone.*

Is an elegant iron ore, extremely hard, of a dark red, or yellow colour; and poſſeſſes the virtues of iron filings, or common crocus of iron.

Plumbum. *Lead.*

Is the heavieſt of metals, except gold; it melts in a moderate heat; and, if kept in fuſion, is ſoon converted partly into fume, and partly into an aſh-coloured calx, called *plumbum uſtum*; this expoſed to a ſtronger fire, in ſuch a manner that the flame may play upon its ſurface, becomes firſt blackiſh, then yellow, and afterwards of a deep red, called *minium*, or *red lead*; if, in this proceſs, the fire is ſuddenly raiſed to a conſiderable height, the calx melts, and aſſumes the appearance of oil, and, in cooling, forms a ſoft leafy ſubſtance of a yellow-red colour, called *letharge*. Lead is filled with ſulphur, or a bituminous earth, that renders it very ſupple and pliant; perhaps it contains too ſome mercury: it is found in many countries, fixed to diverſe ſorts of ſtones, and earths; ſome of which contain ſilver; and others both gold and ſilver. Lead ore is black, like that of antimony. Thoſe that work in lead are ſubject to cholics and paralytic diſorders. The proper menſtruum of this metal is *aqua fortis*: the vegetable acids likewiſe diſſolve it, but in very ſmall quantity; the vapour of vinegar turns it to a white ruſt, or ceruſſe, called *white lead powder*. The calx of lead diſſolves in expreſſed oils by heat; theſe mixtures are the baſis of ſeveral official plaſters and unguents. Cryſtals of this metal made with diſtilled vinegar, called *ſugar of lead*; and a tincture drawn from theſe, and green vitriol, are likewiſe kept in the ſhops. Preparations of lead, given internally, are ſaid to incraſſate the fluids, abate inflammation, and reſtrain venereal deſires. The ſugar is a ſtrong aſtringent, and has been exhibited as ſuch, with good ſucceſs in hæmorrhages,

morrhages, fluor albus, and ſeminal gleets; and the tincture is recommended for the like purpoſes, and for checking immoderate ſweats in phthiſical caſes; whence it is uſually called *tinctura antiphthiſica*. As immoderate diſcharges of the menſes, flux of the hæmorrhoids and dyſenteries, are uſually cauſed by ſharp corroſive ſalts, which fall into the veſſels; ſo ſugar of lead, and all other matters that abſorb acids, do ſerve in thoſe diſtempers. The internal uſe of this medicine is, nevertheleſs, full of danger, and ought never to be ventured upon unleſs in deſperate caſes, after other medicines have been employed without taking effect; it often occaſions violent cholics; and, though it ſhould not prove immediately hurtful, its ill conſequences are ſure, though ſlow; and tremours, ſpaſms, lingering tabes, too frequently follow.

PRÆPARATA.

SPIRITUS, &c.

L. E. Spiritus, Sal, et Oleum Cornu Cervi. *Spirit, Salt, and Oil of Hartſhorn.* D. gr. 10 to ʒi.

Are obtained by diſtillation from hartſhorn. After the ſame manner may be procured a ſpirit, ſalt, and oil, from blood, urine, and the ſolid parts of animals, as the ſcull, bones, horns, hoofs, hair, *&c.* What is here called the ſpirit of hartſhorn, is nothing but ſome portion of volatile ſalt, floating in the phlegm, and is extremely precarious in point of ſtrength. It is good for little but to ſtimulate the noſtrils, in fainting and ſwooning fits; and ſometimes given inwardly with the ſame intention: it gives a different determination to the ſpirits, and ſo ſtops the convulſive contractions; is diaphoretic, and good in all nervous caſes. But the ſalt poſſeſſes theſe virtues in a much higher degree, for the ſpirit has no virtue but what it receives from the ſalt; the ſalt rouſes the ſpirits, and contributes to their regular motions; is alſo of great ſervice at the cloſe of unmerciful fevers, which have ſo tore the conſtitution, that life only remains, which is ſo languid, that it is ſcarce perceptible: it may be given, diſſolved, in any proper vehicle. What remains after the ſpirit, ſalt, and oil, are drawn off, when burnt, is as good as any calcined hartſhorn; it is a ſweetner of the blood, and of the ſame nature with the teſtacea; is much uſed

in decoctions againſt diarrhæas, and fluxes of the belly, and when boiled in ſpring water with a little cinnamon, makes what is called the *white drink*. The medicinal virtues of volatile ſalts and ſpirits have been already mentioned; and as the ſpirit and ſalt of hartſhorn agree in virtues with volatile ſalts and ſpirits in general, ſo we need not again repeat what hath been ſaid.

Spiritus Cornu Cervi Aromaticus, *Aromatic Spirit of Hartſhorn*, is the ſalt, ſpirit, and oil of hartſhorn, rectified and diſtilled a ſecond time with one eighth of ſal volatile oleoſum, and one fourth of its quantity of ſpiritus mindereri. It is a good diuretic, and diaphoretic, and poſſeſſes all the virtues of *Goddard's Drops*.

Sal Cornu Cervi Succinatum, *Salt of Hartſhorn with Amber*, is the ſalt of hartſhorn ſublimed with half the quantity of the ſalt of amber. This ſalt retains the virtues of both the ingredients.

Spiritus Cornu Cervi Succinatus, *Spirit of Hartſhorn with Amber*, is diſtilled from hartſhorn with half its quantity of amber: the oil, which comes over, is of great efficacy in arthritic, and rheumatic pains. You may make any volatile animal ſalt eſſential, by mixing it with the ſame weight of tartarized ſpirit of wine, and then pouring upon it diſtilled vinegar, till the ebullution ceaſes; and then, by ſublimation, you have a moſt beautiful ſalt, as white as ſnow, of a quick, pleaſant, penetrating ſcent, and very agreeable ſmell. This ſalt will unite with the ſalt of tartar, and readily diſſolve in ſpirit of wine: it is extremely penetrating, and a moſt effectual diſſolvent of vegetable and animal ſubſtances, as well as a powerful diuretic and ſudorific; is therefore good in all chronical diſeaſes, from gut. 10 to 40, in any convenient vehicle.

L. E. Decoctum Album. *White Decoction.*

This decoction is made of calcined hartſhorn prepared ℥2, gum arabic 32, boiled in lb. 3 m. of water, till two pints only remain, which is ſtrained off for uſe. The *Edinburgh* college directs this decoction to be made of calcined hartſhorn prepared ℥1, gum arabic 32, boiled in lb. 3 of water, till two only remain, and towards the end there is added 31 of cinnamon bruiſed; and to the ſtrained liquor two drams of white ſugar is added. Theſe decoctions are uſed as common drinks in acute diſeaſes attended with a looſeneſs, and where acrimonious humours abound in the *primæ viæ*, for the gum renders the liquor very glutinous.

E. De-

E. Decoctum Album Compositum. *Compound of White Decoction.*
D. ℥1 or more.

This decoction is made of comfry root, tormentil root *aa* ℥ſs, boiled in lb. 3 of water to lb. 2, towards the end of boiling, one dram of cinnamon is added; to the ſtrained liquor is added of calcined hartſhorn, chalk, and white ſugar *aa* ℥ſs, and the whole mixed together. This is a well-contrived, mild, and lightly incraſſating reſtringent medicine, and may be occaſionally drank, according to the urgency of the ſymptoms.

L. Mucilago Seminum Cydoniorum. *Mucilage of Quince Seeds.*

This mucilage is made of quince ſeeds ℥1, boiled over a gentle fire, with lb. 1 of water, till the water becomes ſlimy, like the white of an egg, and then it is ſtrained for uſe. It is a pleaſant ſoft mucilage; of a ſweetiſh taſte, and light agreeable ſmell; is eaſy ſoluble in water. Some have ſuppoſed it ſimilar to gum tragacanth.

Aqua Antiphthisica, vel Aqua Limacum. *Water againſt a Conſumption, or Snail-Water.*

This water is diſtilled from the following ingredients, of garden-ſnails ſix gallons, of earth-worms three gallons, of common wormwood, ground-ivy, comfry, ſage, carduus, *aa* lb. iſs, penny-royal, juniper-berries, fennel-ſeeds, aniſeed *aa* lb ſs, cloves, benjamin, cubebs *aa* ℥3, archangel and elder flowers *aa* ℥2, digeſted twenty-four hours in ſpirit of wine, and common water *aa* eight gallons, then the water is diſtilled. This water is neglected by the college, though it is ſaid to have recovered people almoſt from the grave: it raiſes languiſhing conſtitutions; deterges, heals and ſtrengthens thoſe viſcera and the lungs in particular, whoſe decay brings on a general conſumption. It ſhould be drank for a month or two together, from lb. 1 to 2, a day, mixed with milk.

PULVERES,

PULVERES, &c.

L. E. Pulvis e Tragacantha Compositus. *Compound Powder of Gum Tragacanth.* D. ʒſs to ʒ.

This powder is compounded of gum tragacanth, gum arabic, marſh-mallow roots *aa* ʒiſs, ſtarch liquorice *aa* ʒſs, double refined ſugar ʒ3, ground into powder. The *Edinburgh* college directs it to be made thus, of gum tragacanth ʒiſs, marſh-mallow roots, liquorice, ſtarch *aa* ʒſs, mixed together. They are both mild, emollient, glutinous medicines, good in hectic caſes, tickling coughs, ſtrangury, heat of urine, internal bleeding and bruiſes, ſome kinds of alvine fluxes, venereal gleets and diſorders of the reins; and in other diſeaſes, proceeding from a thin acrimonious ſtate of the juices, and abraſions of the natural mucus of the inteſtines: they ſoften, and give a greater conſiſtency to the former, and defend the latter from being irritated or excoriated by them. All the ingredients coincide in theſe general intentions, but the marſhmallow roots are too bulky for this form. This is preferable to the *compound powder of marſhmallows*, or *powder of Haly*.

L. E. Trochisci Bechini Albi. *White Pectoral Troches.*

Are made up of double refined ſugar, lb.iſs, ſtarch ʒiſs, liquorice ʒ6, florentine orris root reduced to powder ʒſs, mixed altogether, and formed into troches with mucilage of gum tragacanth. The *Edinburgh* college prepares theſe troches of white ſugar lb.iſs, powder of diatragacanth ʒ3, florentine orris root ʒ1, made up into troches with roſe-water. They are both very agreeable pectorals, and may be uſed at pleaſure; they ſoften acrimonious humours, allay tickling coughs, and are particularly uſeful in childrens hectic heats and coughs, who often cannot be prevailed upon to take medicines in any other form.

L. E. Trochisci Bechini Nigri. *Black Pectoral Troches.*

Are compoſed of extract of liquorice, double refined ſugar *aa* ʒ1o, gum tragacanth lb.ſs, with as much diſtilled water as is ſufficient to form them into troches. The *Edinburgh* college directs theſe troches to be made of extract of liquorice, gum arabic *aa* ʒ4, boiled in a ſufficient quantity of water till the ingredients

dients are diſſolved: to the ſtrained liquor are added of white ſugar ℥8, and then evaporated in a gentle heat to the conſiſtence of troches. Theſe are calculated for the ſame purpoſes as the white pectoral troches: if they are coloured with ſaffron, they are called *trochiſci flavi*: if bole armenic is added, they are called *trochiſci bechini rubri*.

Tabellæ diatragacanthi, lozenges of the compound powder of gum tragacanth; are made of gum tragacanth ℥3, white ſugar lb. 1, and a ſufficient quantity of roſe water. This compoſition poſſeſſes the virtues of the troches, and powder, from which it receives its name: the college has laid it aſide as ſuperfluous.

Lohoch Diatragacanth, Lohoch of the compound Powder of Gum Tragacanth, is made of compound powder of gum tragacanth ʒ2, japan earth ʒ1, whites of eggs ℥1, ſyr. of meconium ℥2, mixed together. This differs little from the above mentioned troches and lozenges, therefore the college has not inſerted it in their laſt review.

FORMULÆ EXTEMPORANEÆ.

℞ C. C. C. ʒ6, ocul. ♋ præp. ʒ3, rad. conſolid. major. — tormentil. *aa* ʒ2, aq. fontan. lb. 3, coque ad lb. 2, colaturæ; turbidæ adde aq. menth. pip. ſimp. ℥1, ſyr. e mecon. ℥ſs.

℞ Aq. hordeat. bullient. lb. 1, mel. roſac. ℥iſs, gum. arab. ʒ3, m.

℞ Alth. rad. ℥2, coque ex aq. fontan. lb. 3 ad 2, adde ſyr. e ſucc. limon ℥2.

℞ Amygdal. dulc. N°. 15 ol. amygd. ℥1, gum. arab. ſacchar. alb. *aa* ʒ2, aq. cinnam. ſimp ℥8, f. emulſ.

℞ Ol. amygd. dulc. vel olivar. ℥2, aq. fontan. ℥6, ſpt. ſal. ammon. gut. 30, ſacchar. alb. ℥ſs m. ſumat æger ſubinde urgente tuſſe cochl. 2.

℞ Amygpal. dul. excorticat. N°. 15, contunde in mortar. ſenſim affundendo aq. hodei lb. 2, colaturæ adde ſacchar. alb. ℥1.

℞ Caricæ. uvæ paſſæ althææ rad. *aa* ℥1, glycyrrhizæ ʒ2, aq. bullient. lb. 2, infunde & cola.

℞ Gum. arab. ʒ2, coq. in aq. hordeat lb. 2, adde ſyr. e ſucc. limon. ℥iſs, propotu.

℞ Sem.

℞ Sem. lini ℥1, glycyrrhizæ ℥ſs, aq. bull. lb.3, infunde per horas aliquot; cola pro potu.

℞ Spermac (mucilag. gum. arab. ſolut.) ℈1, aq. menth. vulg. ſimp. ℥2, ſyr. balſamic. ℥1, f. hauſtus.

℞ Sperm. cet. (in vitel. ovi ſolut.) ℥2, aq. alex. ſimp. ℥6 — nuc. moſch. ℥1, ſacchar. alb. ℥iſs m.

℞ Sperm. cet. (in vitel. ovi ſolut.) ℥2, aq. alex. ſimp. ℥6, — nuc. moſch. ℥1, ſacchar. alb. ℥iſs, ſyr. e mecon. ℥1, balſ. peruv. (cum ſacchar. ſolut.) gut. 40, m.

℞ Sperm. cet. (in vitel. ovi ſolut.) ℥2, aq. alex. ſimp. ℥8, ſal. c. c. ℈2, ſacchar. alb. ℥4, m.

℞ Aq. hordeat. lb.2, gum. arab. ℥1, parum coque & cola.

℞ Ol. amygdal. ℥1, gum. arab. ℥1, ſyr. balſamic. ℥ſs, diu tritis adde aq. menth. vulg. ſimp. ℥8, f. mixtura.

℞ Pulv. gum. arab. ℥3, coq. in aq. font. lb.2 ad ℥28, continuo agitand. e fundo vaſis adde ſyr. ex alth. ℥4 m.

℞ Balſ. tolutan. ℥6, coq. in aq. hordeat lb.3, deinde cola cui; adde amygdal. dulc. ℥6, opobalſ. gut. 60, ſacchar. alb. q. ſ.

℞ Flor. conſolid. maj. plantag. latifol. *aa* m. 5, rad. glycyrrhiz ℥2, infunde calide per dies in aq. calcis cong. 2 cola doſ. lb.ſs, bis in die.

℞ Aq. hordeat. ℥6— roſar. ℥2, ſyr. balſam. ℥6 m.

℞ Aq. roſar. ℥4, balſ. tolutan. (in vitel. ov. ſolut.) ℈iſs. lact. recent. lb.1, flor. benzoin ℈2, ſacchar. ℥4 m.

℞ Balſ. copaib. ℥1, aq. commun. ℥4, aq. cinnam. ſpt. ℥1, ſyr. e cort. aurant. ℥4, m.

℞ Balſ. copaib. ℥3, ol. e bacc. juniper. eſſ. gut.30, aq. fœnicul. — raphan. comp. ſyr. alth. *aa* ℥2.

℞ Balſ. tolutan. benzoin. *aa* gr.10, ſacchar. ℈1, in f. pulv.

℞ Sperm. cet. ℈1, myrrh. gr.10, flor. benzoin. gr.5, ſacchar. pur. gr.10, m.

℞ Cer.

℞ Cer. flav. ʒ3, ſperm. cet. ʒ2, conſ. fol. roſar. rub. ℥iſs, ol. amygdal. ʒ4, ſyr. balſam. q. ſ. ut f. electarium.

℞ Balſ. Locatell. ʒ2. conſerv. fol. roſar. rub. ℥ʒ, ſyr. balſam. q. ſ. f. elect.

℞ Rad. alth. ℥ʒ2, uvar. paſſ. ℥iſs, ſpec. aromatic. ſyr. ex alth. q. ſ. f. alect.

℞ Conſ. fructus cynoſbath. ℥ſs, amygdal. dulc. ʒ4, ſperm. cet. ʒ2, m. f. elect. pulv. e tragacanth. comp. ʒ4, ſyr. ex. alth. q. ſ. f. electarium.

℞ Elect. lenativ. ℥iſs, flor. ſulphur. ʒ3, ſyr. violar. q. ſ. ut f. elect.

℞ Sperm. cet. gr. 15, gum. ammon. gr. 10, ſal. c. c. gr. ſyr. ſimp. q. ſ. f. bolus.

℞ Sperm. cet. ʒ2, ſacchar. alb. ʒ4, ſyr. balſam. m. ſ. a. D. cochl. 1 ter vel. quater in die.

℞ Pulv. rad. alth. ʒ3, flor. ſulphur. ʒ1, gum. arab. ℈iſs, album. ovi ℥ʒ1, ſyr. ex alth. q. ſ. m.

℞ Sacchar. alb. cand. ʒ6, ol. amygdal. dulc. ſyr. ex alth. *aa* ℥iſs, m. ſ. a.

℞ Syr. papav. errat. ol. palm. chriſt. ℥ʒ2 — e ſemin. aniſ. eſſ. gut. 2, ſacchar. ʒ2, m.

℞ Conſ. fruct. cynoſbath. ʒ4, confect. paulin. ol. amygdal. dulc. *aa* ℥iſs, m.

℞ Sperm. cet. ʒ4, ſacchar. alb. cand. ſyr. balſam. tolutan. ℥iſs, ol. amygdal. ʒ1, flor. ſulphur. ʒ1, ſal. c. c. gr. 6, gum ammon. ℈ʒ, m.

CHAP. II.

Of ASTRINGENTS.

SIMPLICIA.

FOLIA.

MENTHA VULGARIS. *Spear, or Garden Mint.*

STRENGTHENS the ſtomach, good in nauſea and reachings to vomit, and in almoſt all paralytic weakneſſes of the ſtomach; good in cholics and gripes of children, lienteries, and other immoderate fluxes; in hyſterics, languors, and other weakneſſes after delivery, it is a uſeful cordial. The tincture, or extract, prepared with rectified ſpirit, poſſeſſes all the virtues of the mint. The eſſential oil, and diſtilled water, contain only the aromatic part; and the expreſſed juice retains only the aſtringency and bitterneſs. There is a *conſerve* kept in the ſhops, which retains the taſte and virtues of the herb: and is given in weakneſs of the ſtomach, and reachings to vomit; and not unfrequently does good in ſome caſes of this kind, where the warmer and more active preparations of mint would be leſs proper.

PIMPINELLA SAXIFRAGA. *Burnet Saxifrage.*

The leaves are mildly aſtringent, and good in dyſenteries and hæmorrhages. The root has a grateful warm taſte; and is a good ſtomachic, reſolvent, detergent, diuretic, diaphoretic, and alexipharmic; does good in ſcorbutic and cutaneous diſorders, foulneſs of the blood and juices, tumours and obſtructions of the glands, and in diſeaſes proceeding from a deficiency of the fluid ſecretions in general; as it opens, attenuates, and promotes ſweat; good in aſthmas and dropſies; cleanſes the lungs, liver, and kidnies; and diſſolves the ſtone. Some recommend it in ſtranguries, cholics, and *lues venerea*; takes freckles off the face, and ripens ſwellings.

QUERCUS

Quercus. *Oak.*

The buds, bark, acorns, and cups, are good aſtringents, and ſtrengtheners; therefore good in hæmorrhages, alvine fluxes, and other preternatural and immoderate ſecretions; and cures freſh wounds.

Urtica Maj. Vulgaris. *Nettles.*

The leaves are a wholeſome pot-herb; the root is aſtringent; ſtops hæmorhages; ſpitting of bloody urine; and is acounted diuretic.

FLORES.

Balaustia. *Balauſtines.*

Is a ſhrub growing in *Italy*, of an elegant red colour, like dried red roſes; of a bitter aſtringent taſte; good in diarrhæas, dyſenteries, and in all caſes where aſtringents are indicated; is alſo uſed in aſtringent clyſters.

Rosa Rubra. *Red Roſe.*

Is a grateful aſtringent; good in diſtempers of the lungs; particularly in defluctions of rheum and ſpitting of blood; and is good externally in inflammations of the eyes.

Conſerva Roſarum Rubrarum, *Conſerve of Red Roſes*, is a very agreeable and uſeful medicine, ʒi or ii diſſolved in warm milk, are frequently given as a light aſtringent in weakneſs of the ſtomach, coughs, and phthiſical complaints.

FRUCTUS, &c.

Gallæ. *Galls.*

Are excreſcencies from the oak tree; have a very auſtere ſtiptic taſte, but no ſmell; are ſtrong aſtringents, both internally and externally; ſtop hæmorrhages, *&c.*

CYDONIA, GRANATA MALUS, MORUS, MYRTI BACCÆ, PRUNA SYLV. RUBRI IDÆI FRUCT. RIBESIUS BERBERUS.

Quinces, Pomgranate, Mulberries, Myrtle-berries, Sloes, Raſp-berries, Currants, Barberries.

Theſe are all nearly of the ſame virtues; are grateful, cooling aſtringents, and abate thirſt; good in all inflammatory caſes, bilious fluxes, nauſeous vomiting, weakneſs of the ſtomach, an acrimonious thinneſs of the juices, diarrhæa, dyſentery.

Gelatina Ribeſiorum, Gellies of Currants, is a grateful dulco-acid cooling medicine; frequently uſed for moiſtening the mouth and fauces in inflammatory caſes; diſſolved in water makes a good diluent drink of a ſaponacious nature; good alſo in chronical caſes, accompanied with great heat; alſo in bilious fluxes, and putrid ſcurvies.

Gelatina Berberorum, Gelly of Barberries, is alſo very cooling, ſomewhat aſtringent, and differs little from the gelly of currants.

Conſerva Prunorum Silveſtrium, Conſerve of Sloes, is a gentle aſtringent, and may be given in a doſe of 34, or 5.

Succus Prunorum Silveſtrium ſive Acacia Germanica, Juice of Sloes or German Acacia, is a moderately ſtrong aſtringent, ſimilar to the *Egyptian* acacia, next to be mentioned; the juice of ſloes is often ſubſtituted in place of the *Egyptian*; it is good in fluxes from a ℈ı to 3ı.

Gelatina ſeu miva Cydoniorum, Gelly, or Marmalade of Quinces, is a uſeful cooling reſtringent; good in weakneſs of the ſtomach, reachings to vomit, diarrhæas and dyſenteries, proceeding from a hot indiſpoſition, or ſharp bilious humour; the doſe is from 3ı to ℥ſs, or more.

ACACIA. D. 3ı.

Is the inſpiſſated juice of unripe fruit, brought from *Egypt*; of a deep-brown colour; and inwardly of a red or yellow-brown; of a firm conſiſtence, not very dry; has a rough diſagreeable taſte, followed by a ſweetiſhneſs; diſſolves entirely in water; but is ſcarce acted upon by rectified ſpirit; is a mild aſtringent; good in ſpitting of blood, fluxes, *&c.* externally it ſtrengthens the eyes; and is uſeful in gargariſms for quinſies.

TERRA JAPONICA. *Japan Earth.* D. ℈ı. to 3ı.

Is an inſpiſſated vegetable juice, prepared in the *Eaſt-Indies*; has a more agreeable taſte than moſt ſubſtances of this claſs; diſſolves totally in water; and almoſt

almoſt in rectified ſpirit; has a dark-brown colour, whith a caſt of red; is a mild aſtringent and antiſeptic; is often employed in alvine fluxes, uterine profluvia, laxity, and debility of the viſcera; in coughs from thin acrid defluxions, catarrhs, and all fluxes.

CINNAMOMUM. *Cinnamon.*

Is a light thin bark, of a red colour, has a fragrant ſmell, and an aromatic, ſweet, pungent taſte; is a very elegant and uſeful aromatic aſtringent; corroborates the viſcera; good in alvine fluxes, and immoderate diſcharges from the uterus. The oil of cinnamon is very ſtrong; and, in general, it is to be obſerved, that the leſs oil any aromatic medicine yields, the ſtronger it is; cloves yield a much greater quantity of oil than cinnamon; and is proportionably milder. There was a ſyrup, kept in ſome ſhops, called *ſyrupus de Cinnamomo*, *ſyrup of cinnamon*; but it does not deſerve the trouble of making, nor any further mention.

BISTORTA. *Biſtort.* D. ℈ı to ʒı.

Has a red colour within, but is outwardly of a black-brown; has a rough auſtere taſte; and is one of the ſtrongeſt of the vegetable aſtringents; good in all kinds of immoderate fluxes and hæmorrhages, both externally and internally: where aſtringents are indicated, it is a very powerful ſtiptic.

TORMENTILLA. *Tormentil.*

Is black without, and red within; has a fine aromatic flavour, and auſtere ſtiptic taſte; is the moſt agreeable and efficacious of all the vegetable aſtringents; good in looſeneſs, in fevers, ſmall-pox, meaſles; good in all malignant caſes, where there is a flux of the bowels or womb; gives an agreeable red colour to another mixture. All theſe aſtringent ſubſtances above-mentioned yield their virtues to water, and vinous ſpirit. Their medical effects in general are to conſtringe the fibres, incraſſate, or lightly thicken the juices; their more experienced uſe is in diſorders, proceeding from debility, or flaccid ſtate of the ſolids, hæmorrhages, thinneſs of the blood, laxity, and rupture of the veſſels, in preternatural diſcharges of other kinds; when the offending matter is corrected and evacuated, which muſt be moſt religiouſly obſerved, before you venture to exhibit any medicine of this claſs; in plethoric habits, inveterate obſtructions and fluxes of all kinds, before the morbific matter is expelled, or where there is any

ſtricture

ſtricture or ſpaſmodic contraction of the veſſels, aſtringents would be eminently hurtful; in critical dyſenteries and diarrhæas, if the acrimonious matter is reſtrained by ſtiptics, and confined to the inteſtines, it corrodes and inflames them, and ſometimes occaſions a gangrene of the parts.

Alumen *Alum.* D. gr. 6 to ℈1.

Is a very ſtiptic mineral, artificially produced from certain minerals by calcination; has a white or pale red colour; an auſtere ſtiptic, nauſeous, ſweet taſte; diſſolves in fourteen times its own weight of water; is a powerful aſtringent, and often uſed externally and internally from gr. 1 to 15, or more; is commodiouſly exhibited in conjunction with reſinous ſubſtances, particularly with dragon's blood; a powder compoſed of equal parts of theſe is much to be depended upon in uterine hæmorrhages; too frequent returns of the menſes, or in too great a quantity; ſtops floodings of women with child, and moderates the lochia; in violent bleedings half a dram given every half hour ſeldom fails to ſtop the diſcharge before 33, or 4, have been taken; given in large doſes, it occaſions a nauſea, and at firſt taking proves purgative, leaving afterwards a violent conſtipation; therefore it is better to give it in ſmall and often repeated doſes.

Alumen Uſtrum, *burnt Alum*, loſes in calcination one-ſixth of its weight, and is proportionably ſtronger, and more acrid, and is a good eſcharotic for gently eating away proud fleſh.

Ferrum seu Chalybs. *Iron.* D. gr. 10 to ʒſs.

Iron is a very porous metal, compounded of a vitriolic ſalt, ſulphur, and earth; is found in mines in different parts of *Europe*, in form of a ſtone or marcaſite, reſembling load-ſtone; which is often found in mines of iron, and may be reduced to iron by a ſtrong fire. Iron does eaſily acquire the virtues of load-ſtone, ſo that they ſeem to differ only in the figure of their parts. Steel is iron calcined with the nails and horns of animals, and when red hot, dipt in cold water, which cloſe together, and renders the particles of the metal more compact, ſolid, and united; which ſhews us that iron is much fitter for medicinal purpoſes than ſteel; for if the action of iron depends upon the ſalts it contains, the ſalt of iron is much more eaſily ſeparated in the ſtomach than that of ſteel; becauſe the pores of ſteel are more compact than that of iron; and being harder

to

to be diſſolved, may ſometimes paſs away with the excrements, without being received into the abſorbents. Though iron contains a vitriolic acid, it ſtill continues to retain the nature of an alkali, for it ferments with acids; but this is owing to its containing more earth than ſalt; and this earth containing the ſalt within it, retains pores ſufficient to receive the points of the acid, when thrown upon it, and ſo does the office of an alkali; for it is ſufficient for any body to be called an alkali, if it has its pores ſo diſpoſed that the acids can, by their motion, violently ſeparate whatſoever ſtands in their way. Sulphur promotes the fuſion of iron, and changes it into a ſubſtance, not greatly diſſimilar to a combination with vitriolic acid. All acids diſſolve this metal; even the air corrodes it into a ruſt.

Iron holds a capital place in the *materia medica*, and has been prepared in as many forms as any ſimple whatſoever, though they differ from one another only in their degrees. The general virtues of iron are to conſtringe and corroborate the fibres, eſpecially of the inteſtines; and by removing relaxations, and giving a due tenſity to the ſolids, it reforms the vitiated criſis of the blood, and quickens the circulation; promotes the deficient ſecretions in the remoter parts; and, at the ſame time, repreſſes inordinate diſcharges in the inteſtinal tubes. After the exhibition of ſteel, (if it takes effect) the pulſe is very ſenſibly raiſed; the colour of the face, tho' pale before, changes into a florid red, the alvine, uterine, and cuticular excretions, are increaſed; the patient has nidorous eructations, if acceſſant juices are lodged in the *primæ viæ*; and the fœces become of a black colour; theſe are marks of its taking due effect. It is eſteemed a good emmenagogue; and in hiſteric, and other cachectic caſes, is of great ſervice; is alſo good in proſtrations of the appetite, and weakneſs of the digeſtive faculty, particularly from hard drinking. It is ſometimes joined with the bark in the cure of agues, and intermittent fevers. It has been given in the jaundice, but very improperly. Iron is almoſt always aſtringent by ſtool, on account of its terreſtrial part; and is aperitive by urine. Water, wherein hot iron has been quenched, is good to ſtop a flux. As iron removes obſtructions by means of its ſalts, which the ſolid parts of metals carry further than other ſalts; therefore it is proper, before the exhibition of it, to purge and moiſten the body with broths, leſt it ſhould find the paſſages of the ſmall veſſels filled and obſtructed with groſs matter, which may ſtop it, and thereby cauſe inflammations, pains, cholics, *&c.* Iron often does ſervice in abſorbing an alkali.

An aperient virtue is uſually attributed to ſome of the preparations of iron, and an aſtringent to others; but a ſuppoſition of an aperient quality in ſteel,

prepared

prepared by any method whatſoever, ſeems very groundleſs, and contrary to fact; for, in reality, they all produce the effects both of aperients and aſtringents, and differ only in degree. Thoſe, diſtinguiſhed by the name of *aſtringent*, ſometimes occaſion a very copious diſcharge of urine, or a diarrhæa, whilſt thoſe called *aperient*, frequently ſtop theſe evacuations. In a preternatural diſcharge, or ſuppreſſion of natural evacuations, proceeding from a languor, or ſluggiſhneſs of the fluids, and weakneſs of the ſolids, this metal, by increaſing the motion of the former, and ſtrengthening the latter, will ſuppreſs the flux, or remove the ſuppreſſion: but where the circulation is already too quick, the ſolids too tenſe and rigid, and where there is any ſtricture, or ſpaſmodic contraction of the veſſels, iron, and all its preparations, will equally aggravate both diſtempers. Though the different preparations of iron all act in the ſame manner, yet they are not all equally proper in all conſtitutions; where acids abound in the *primæ viæ*, the crude filings, reduced into a fine powder, prove more ſerviceable than the moſt elaborate preparation of them. On the other hand, where there is no acid in the *primæ viæ*, the metal requires to be previouſly opened by a ſaline menſtruum; hence a ſolution of iron in acid liquors has, in many caſes, excellent effects; where the more indigeſtible preparations as *calces*, made by fire, have ſcarce any effect at all. If alkaleſcent juices are lodged in the ſtomach, this metal, though exhibited in a liquid form, proves at leaſt uſeleſs; for here the acid ſolvent is abſorbed by the alkali, which it meets with in the body, and leaves the iron reduced to an unactive calx.

Chalybeate medicines are likewiſe ſuppoſed to differ, independent of the differences of conſtitution, according to the nature of the acid united to the metal. Vegetable acids ſuperadd a detergency and aperient virtue to iron: vitriolic acids make it act as a powerful aperient in the firſt paſſages; whilſt the natural ſalts render it extremely ſtiptic; and the marine ſtill more ſo.

There is a very agreeable preparation of ſteel, called *mars ſaccharatus*, *ſugared ſteel*, prepared by putting any quantity of filings of iron into a braſs kettle, ſuſpended over a gentle fire, and adding, by little and little, twice their weight of ſugar; and then boiling it to the conſiſtence of candy, continually agitating the kettle, that the filings may be cruſted over. The Confectioners generally make this preparation. The *Edinburgh* College expects the Apothecaries to keep it; tho' they ſeldom or ever make it.

PRÆPARATA.

PRÆPARATA.

L. Chalybis Rubigo Præparata. *Ruſt of Steel prepared.*

E. Martis Limatura Præparata. *Filings of Iron prepared.* D. gr. 4 to 30.

The *London* College, in order to fit ſteel for medicinal uſe, orders the filings to be expoſed to the air, and frequently moiſten'd with vinegar or water, until they are changed into ruſt; which is to be beat in a mortar, waſhed with water, and dried for uſe.

The *Edinburgh* College directs the filings of iron to be prepared by firſt cleanſing them by a magnet, and afterwards putting them in a moiſt place to turn to ruſt; which is to be gradually ground into an impalpable powder. They may be prepared with vinegar.

The ruſt of iron is preferable as a medicine to the *calces*, or *croci*, made by ſtrong fire; and is given with ſucceſs in obſtinate chlorotic caſes, accompanied with exceſſive head-achs, and other violent ſymptoms. *Hoffman* joins with it pimpinella, arum root, and ſalt of tartar, with a little cinnamon and ſugar. All preparations of this metal ſhould be given in ſmall doſes, which ſhould rather be often repeated than enlarged.

E. Mars Solubilis, seu Chalybs Tartarisatus. *Soluble, or tartarized Steel.* D. gr. 106 to ʒi.

Is made of equal parts of filings of iron, and cryſtals of tartar, moiſtened into a paſte with water; then formed into balls, baked in an oven, and reduced to powder; the operation is repeated, till the matter is capable of being eaſily ground into an impalpable powder. This is a very elegant and uſeful preparation of ſteel; and will, in many caſes, take effect, when others have failed; the ſalt, here joined, renders the metal ſufficiently ſoluble in the animal fluids. Doctor *Willis* is ſaid to have been the inventor of it; and, by his name, it is commonly known in the ſhops; it may be given in a liquid form, or in a bolus.

Mars cum Tartaro Preparatus, Iron prepared with Tartar, is compoſed of equal parts of filings of iron, and white tartar, made red-hot in a crucible; and, when cold, powdered for uſe. It muſt be kept from air, otherwiſe it will run;

therefore it is beſt to give it in a liquid form. It is a uſeful medicine, though the College takes no notice of it.

Mars cum Saccharo Præparatus, *Steel prepared with Sugar*, is the filings of ſteel, rubbed, with two-thirds of brown ſugar candy, into a powder. The method of preparing iron with ſugar makes it more agreeable to be taken in ſome forms.

E. Crocus Martis Aperiens. *Opening Crocus of Iron.* D. gr. 6 to ℈ı.

Is prepared ſteel, gently calcined to redneſs.

E. Crocus Martis Astringens. *Aſtringent Crocus of Iron.* D. gr. 6 to ℈ı.

Is the aperient crocus, reverberated in an extreme degree of heat. The croci of iron may be procured by ſtrongly calcining green vitriol, or colcothar remaining after diſtillation of the oil of vitriol. The diſtinction of theſe preparations, into aperient and aſtringent, has not the leaſt foundation. All the preparations of ſteel act by an aſtringent quality; the only real difference of all theſe preparations is, that thoſe prepared by the corroſion of acids, are more likely to be ſo divided, as to find an eaſier paſſage into the habit. In this light, theſe preparations differ from one another in virtue; the aſtringent has the leaſt effect; and the aperient has a better chance of entering the habit. They may be given in form of bolus, elect. or pills.

L. Chalybs cum Sulphure Præparatus. *Steel prepared with Sulphur.*

E. Mars Sulphuratus. *Sulphurated Iron.* D. gr. 10 to ℈ı.

The *London* College directs iron, heated with a ſtrong fire, to be applied to a roll of ſulphur, 'till it melts and falls down in drops into water, placed underneath; then it is ſeparated from the ſulphur that ſwims in the water, and ground into an impalpable powder for uſe.

The *Edinburgh* College mixes filings of iron with twice their weight of powder of ſulphur, and as much water as will make them into a paſte; which, after fermentation, is deflagrated in a crucible till it falls down into a deep black powder; if the fire is ſtill continued, it becomes red, and is then called *crocus martis aperiens*, *aperient crocus of iron.* That which the *London* College gives, is little elſe than ſulphur; for if the iron is not made extremely hot, which an Apothecary's furnice is ſcarce able to do, it will not melt upon applying the ſulphur; and

and the ſalt which the iron receives from the ſulphur, by the method of the *Edinburgh* College, makes it more fixed, and does it perhaps more hurt than good; there is little difference between this and the aſtringent crocus of iron.

Mars cum aceto Præparatus, Iron prepared with Vinegar, is iron prepared with ſulphur, waſhed five or ſix times with ſtrong vinegar, and then calcined.

L. Sal Martis. *Salt of Steel.* E. Vitriolum Martis seu Sal Chalybis. *Salt of Steel.* D. gr. 10 to ℈1.

Is made of the ſpirit, commonly called the oil of vitriol, ℥8, filings of ſteel ℥4. mixed with water lb.2 *m*; after fermentation, when the mixture has ſtood in a warm place, for ſome time, it is ſtrained through paper; and, after evaporation, 'till a pellicle appears upon the top, it is put by to criſtalize.

The *Edinburgh* College prepares the ſalt of ſteel of filings of iron ℥3, with oil of vitriol, and warm water *aa* ℥4, ſlowly powered upon them, and then digeſted in a crucible for twelve hours, till a ſolution is made; which is afterwards filtrated and evaporated to a pellicle, then put into a cool place, till the vitriol ſinks to the bottom of the veſſel; afterwards the liquor, that ſwims above the vitriol, is evaporated, till the pellicle appears upon the top, which is ſet by till it cryſtalizes; and the cryſtals are dried upon paper in the ſhade.

What is commonly ſold for ſalt of ſteel, is nothing but green vitriol, purified by ſolution in water, filtration, and cryſtalization: the only difference between them is, that the common vitriol contains ſomewhat more metal in proportion to the acid. The ſalt of ſteel is one of the moſt efficacious preparations of this metal, and not unfrequently made uſe of in cachectic and chlorotic caſes, for forwarding the uterine purgations, ſtrengthening the tone of the viſcera, and for killing worms; it increaſes the circulation in poor weakly conſtitutions, if there is ſtrength enough to paſs it, without diſorder, through the firſt digeſtions; good in hyſteric and hypochondriacal caſes; it may be conveniently exhibited in a liquid form, largely diluted: about ten grains diſſolved in a pint of water may be drank at a time, divided into different doſes. If the doſe is increaſed to half a dram, or a whole one, it, for the moſt part, gently purges; and powerfully promotes urine, if the patient walks in the cool air. It produces ſimilar effects, in many caſes, to the natural chalybeate waters; and may be uſed as a ſuccedaneum to them.

L. Flores Martiales. *Martial Flowers.* D. gr. 6 to ℈1.

Are made of waſhed colcothar of green vitriol, or the filings of ſteel lb 1 *p.* and ſal ammoniac lb.2 *p.* mixed and ſublimed. Theſe are ſometimes called *Flores Salis Ammoniaci Martiales.* From the reſiduum, in the cucurbit, ſome draw a tincture with proof ſpirit, called *tinctura florum martialium*, which agrees with a tincture of the *London* College, which goes under the ſame name. From the flowers diſſolved in warm water, and precipitated with oil of tartar, *per deliquium*, is produced the powder called *mars diaphoreticus.*

Ens Veneris, is ſalt of ſteel, or colcothar of blue vitriol, and an equal quantity of ſal armoniac, ſeparately pulveriſed, then mixed and ſublimed. All theſe preparations of ſteel are aperient, and attenuating: therefore preſcribed in many obſtinate chronic diſeaſes from obſtructions; good in aſthmas, hyſterical and hypochondriacal affections, and all nervous caſes; and in all intentions where chalybeates are preſcribed; as in diſeaſes proceeding from a laxity and weakneſs of the ſolids; as the rickets, *&c.* They are nauſeous in a liquid form, unleſs in ſpirituous tinctures, and occaſion pills to ſwell and crumble, except thoſe made of gums; but they may be conveniently exhibited in form of a bolus.

L. Lixivium Martis. *Ley of Iron.* D. gut. 5 to 15.

Is the matter which remains after the ſublimation of martial flowers, turned into a fluid ſtate, by being put into a moiſt place. It has a highly aſtringent, and ſomewhat ſweetiſh taſte; and may be given in any convenient vehicle, for the ſame intentions as the other chalybeates: it greatly reſembles a ſaturated ſolution of iron made in ſpirit of ſalt.

O L E A.

E. Oleum Cinnamomi. *Oil of Cinnamon.* D. gut. 1 to 5.

Is a valuable oil, and noble medicine; is extremely hot and pungent; of a moſt agreeable flavour, like that of cinnamon itſelf. In cold languid caſes, and debility of the nervous ſyſtem, it is the moſt immediate cordial and reſtorative, and mightily ſtrengthens the ſtomach and nerves. It muſt be always carefully diluted, by the mediation of ſugar, *&c.*

L. E.

L. E. Oleum ex Foliis Menthæ Vulgaris Essentiale. *Essential Oil of the Leaves of Common Mint.* D. gut. 2 to 4.

Smells and taſtes ſtrong of the mint; but in both reſpects is leſs agreeable, and comes far ſhort of the virtues of the plant; it is however a good ſtomachic, and is frequently preſcribed in want of appetite, weakneſs of the ſtomach, reaching to vomit, and in other like diſorders, when unaccompanied with heat or inflammation. It is externally applied for the ſame purpoſes, and makes a uſeful ingredient in the ſtomach plaſters of the ſhops.

AQUÆ.

L. E. Aqua Aluminosa Beteana. *Bates's Alum Water.*

This water is prepared of alum, white vitriol *aa* ℥ſs, boiled in lb.2 of water, and then filtrated through paper for uſe.

The *Aqua Aluminoſa*, *Alum Water*, of the *Edinburgh* college, is made of corroſive mercury ſublimate, and alum *aa* ℥2 beat together, and boiled in lb.2 of water, in a glazed veſſel, to the conſumption of the half; when it has ſettled, the clear liquor is poured off from the ſediment. It is an injudicious water, and rarely made uſe of; the *London* college has expunged it from their Pharmacopœia: but the alum-water of *Bates* is very uſeful for cleanſing and healing ulcers and wounds, and for removing cutaneous eruptions, by bathing the part three or four times a-day with the water made a little warm: it is ſometimes uſed as a collyrium, and as an injection in gonorrhæas, and *fluor albus*, when accompanied with virulence.

Aqua Aluminoſa Magiſtralis, is made of rock alum, and white mercury ſublimate, *p. æ.* boiled in an equal quantity of roſe and plantain water (allowing a pint of water for each dram) till the half is conſumed, and the remainder being filtrated, is kept for uſe. It is preſcribed for deformities of the ſkin, as the itch, and other cutaneous puſtles and ulcerations; but it is an uncertain remedy, and ought to be uſed with caution: it differs in nothing from the alum water of the *Edinburgh* college, but in the uſe of roſe and plantain in place of common water.

E. Acetum

E. Acetum Rosaceum. *Vinegar of Roſes.*

Is made of dried red roſes lb. 1, infuſed in a gallon of the beſt vinegar for 40 days, and then decanted for uſe. It is ſeldom made or preſcribed but to embrocate the head and temples, in ſome kinds of head achs, in which it often does ſervice.

E. Acetum Lithargyrites. *Litharge Vinegar.*

Is made of litharge of gold ℥4, digeſted in a ſand heat with lb. 1 of the beſt vinegar for three days, and then ſtrained off for uſe. This is nothing but a ſolution of the ſugar of lead, and is only uſed externally as a coſmetic againſt cutaneous eruptions, redneſs, inflammation, *&c.* The externål uſe of this litharge is not without danger.

L. Aqua Cinnamomi Simplex. *Simple Cinnamon Water.*
E. Aqua Cinnamomi Sine Vino. *Cinnamon Water without Wine.* D. ℥ſs to 3.

This is obtained, by diſtillation, from cinnamon, with a ſufficient quantity of water to keep it from burning: The *Edinburgh* college allows of cinnamon lb. 1, to two pints of water, and directs the cinnamon to be ſteeped three days in the water before diſtillation.

L. Aqua Cinnamomi Spirituosa. *Spirituous Cinnamon Water.*
E. Aqua Cinnamomi cum Vino. *Cinnamon Water with Wine.* D. 31 to ℥1.

This water is obtained, by diſtillation, of cinnamon lb. 1, proof ſpirit a gallon, with as much water as is ſufficient to prevent burning. The *Edinburgh* college directs the cinnamon to be ſteeped three days in *French* brandy before diſtillation. This is a very agreeable and uſeful cordial water, and may be made with very little trouble, only by mixing ſimple cinnamon water with ſomewhat leſs than an equal quantity of rectified ſpirit.

L. E. Aqua Menthæ Vulgaris Simplex. *Simple Spear-Mint Water.*
D. ℥ſs to 3.

This water is obtained from the diſtillation of dried ſpear-mint leaves lb. iſs, with water to prevent burning. It ſmells and taſtes very ſtrongly of the ſpear-mint,

mint, and proves a very uſeful water for ſtrengthening weak ſtomachs, and curing vomiting, which proceeds from cold viſcid phlegm; and is alſo good in lienteries.

E. Aqua Menthæ Vulgaris Spirituosa. *Spirituous Spear-Mint Water.*

This water only differs from the ſimple ſpear-mint water in having proof ſpirit inſtead of common water. It is given in the ſame intentions as the ſimple water, and if the diſorder is not accompanied with heat or inflammation, ℥ſs of this water ſeldom fails to give relief. It is however conſiderably weaker of the mint than the ſimple water.

L. E. Aqua Menthæ Piperitidis Simplex. *Simple Pepper-Mint Water.*

This water is obtained by diſtillation from dried pepper-mint leaves, with water to prevent burning. It is an elegant and uſeful water; has a warm pungent taſte, exactly reſembling that of the plant itſelf; a ſpoonful or two taken at a time warms the ſtomach, and gives great relief in cold flatulent cholics.

L. Aqua Menthæ Piperitidis Spirituosa. *Spirituous Pepper-Mint Water.*

This water is obtained by the diſtillation of dried pepper-mint leaves lb.1ſs, in a gallon of proof ſpirit, with as much water as is ſufficient to prevent burning. It is given in the ſame intentions as the ſimple water, but is not near ſo ſtrong of the pepper-mint.

L. E. Aqua Vitriolica Cærulea. *Blue Vitriol Water.*
E. Aqua Stiptica. *Styptic Water.*

This water is made of blue vitriol ℥3, alum ℥2, boiled in lb.1ſs of water, till diſſolved, then of ſtrong ſpirit of vitriol (called oil of vitriol) ℥2 are added, and the mixture ſtrained through paper for uſe. The blue vitriol water of the *Edinburgh* college is a filtrated ſolution of white vitriol 32 in lb.2 of water; they direct their ſtyptic water to be made of alum and blue vitriol *aa* ℥3, boiled in lb.2 of common water, till the ſalts are diſſolved, and to the filtrated liquor two drams of oil of vitriol are added. Theſe compoſitions are good for ſtopping bleeding at the noſe, and other external hæmorrhages; and to anſwer this purpoſe, cloths or docils are to be dipt in the liquor and applied to the part.

L. Serum

L. Serum Aluminosum. *Alum Whey.*

This whey is made of alum reduced to powder ʒ2, boiled in lb.1 *m* of cow's milk, till it is curded; then the whey is carefully ſeparated. This is a ſtrong ungrateful aſtringent. Immoderate uterine fluxes, and the diabetes, frequently yield to it, if a quarter of a pint is drank three or four times a day. It has been recommended in intermittent fevers; the quantity above preſcribed is to be taken before the fit, divided into different doſes.

L. Coagulum Aluminosum. *Alum Curd.*

This is made of any quantity of white of eggs, agitated with alum, 'till coagulated. This is a uſeful aſtringent epithem for ſore moiſt eyes; and cools and repreſſes thin defluxions. It may be applied upon a little tow to the eyes, at bed-time.

TINCTURÆ, &c.

L. E. Tinctura Rosarum. *Tincture of Roſes.*

This tincture is made of red roſe buds, free'd from their heels, ʒſs, macerated in lb.2ſs of boiling water, with ℈1 of ſtrong ſpirit of vitriol, called *oil of vitriol*; and to the ſtrained liquor when cold ʒ1ſs of ſugar are added.

The *Edinburgh* College prepares this tincture of dried red roſes ʒ1, infuſed in lb.4 of boiling water, and ʒ1 of ſpirit of vitriol; and, after infuſion for four hours, the tincture is ſtrained off, and two ounces of white ſugar added.

This tincture has an elegant colour, and makes a very grateful julep, in all caſes that require mild coolers and ſubaſtringents; it is well ſuited to waſh down a bolus or electary of the bark; and makes a good gargle.

E. Tinctura Menthæ. *Tincture of Mint.*

This tincture is made of dried mint leaves ʒſs, macerated in a cloſe veſſel, in a warm place for four hours, with lb.1 of ſimple ſpear-mint water, &c. then ſtrained for uſe: it is very rich of the virtues of the mint.

L. Tinctura Cinnamomi. *Tincture of Cinnamon.* D. 31 to ʒ3.

This tincture is made of cinnamon ʒ1ſs, digeſted without heat in lb.1 *m* of proof ſpirit, and then ſtrained for uſe. This tincture poſſeſſes the aſtringent virtues of the cinnamon, as well as its aromatic and cordial quality.

L. Tinc-

L. TINCTURA JAPONICA. *Japanic Tincture.* D. 3ı to 3.

This tincture is made of Japan earth ℥3, cinnamon ℥2, digeſted in lb.2 *m.* of proof ſpirit, and then ſtrained. This tincture is of good ſervice in all kinds of defluctions, catarrhs, looſeneſſes, uterine fluors, and other like diſorders, where mild aſtringent medicines are indicated. Two or three tea ſpoonfuls may be taken every now and then, in red wine, or in any other proper vehicle.

E. TINCTURA LACCÆ. *Tincture of Gum Lac.*

This tincture is made of gum lac ℥ı, myrrh ℥ſs, digeſted in a ſand heat for ſix days in lb.1ſs of ſpirit of ſcurvy-graſs, and then ſtrained off. This tincture is chiefly employed for ſtrengthening the gums, and in bleeding and ſcorbutic exulcerations of them, mixed with a little honey of roſes, or the like, does great good. Some uſe it internally in ſcorbutic complaints; and as a corroborant in gleets, female weakneſſes, *&c.* In theſe caſes it has conſiderable virtues, and will not betray the expectations of phyſicians.

L. TINCTURA STIPTICA. *Stiptic Tincture.*

This tincture is made of green vitriol calcined ʒı, *French* brandy lb.2 *m.* mixed, till the ſpirit turns black, and then ſtrained for uſe. The title of this tincture expreſſes its medicinal uſe. The celebrated ſtiptic of *Helvetius*, ſaid to be that of *Eton*'s, differs from this no otherwiſe than in being more operoſe in its compoſition. They are recommended for internal uſe; and alſo for reſtraining external hæmorrhages.

E. TINCTURA MARTIS. *Tincture of Steel.*

This tincture is made of the filings of iron ℥3, digeſted for three days in B.A. with lb.2 of dulcified ſpirit of ſalt, and then filtrated.

L. TINCTURA FLORUM MARTIALIUM. *Tincture of the Flowers of Steel.*

This tincture is made of the flowers of ſteel ℥4, digeſted in lb.1 *m.* of proof ſpirit, and then ſtrained off for uſe.

L. Tinctura Martis in Spiritu Salis. *Tincture of Steel in Spirit of Salt.* D. gut.10 to 32.

This tincture is made of filings of iron lb.ſs, digeſted without heat in lb.3 *p.* of *Glauber*'s ſpirit of ſea ſalt, till the acid acts no more upon the iron; then the liquor is evaporated to lb.1, and to the remainder, lb.3 *m.* of rectified ſpirit of wine are added. Theſe three tinctures differ from one another only in ſtrength; the firſt is the weakeſt, the laſt the ſtrongeſt. They are all greatly preferable to the calces or croci of iron, as being not only more ſpeedy, but likewiſe more certain in their operation: the latter often paſs through the inteſtinal tube without effect, while the tinctures ſcarce ever fail. They may be given in any proper vehicle twice or thrice a day.

Extractum Martis Aperiens, Opening Extract of Iron, is made of the ruſt of iron digeſted with one half of its quantity of lemon juice, eight times its quantity of the water of honey, and eight times its quantity of muſk, or the juice of white grapes perfectly ripe: when the liquor turns black it is ſtrained and evaporated to the conſiſtence of an extract. This is well contrived to make other ingredients into pills, and may be given in that form, with any thing elſe, in caſes of obſtructions, or where the opening preparations of ſteel are required. D. gr.10 to ʒſs.

Extractum Martis Aſtringens, Aſtringent Extract of Iron, is the ruſt of iron finely powdered, boiled with eight times its quantity of red wine, till two thirds of it be conſumed; then it is ſtrained and evaporated to the conſiſtence of an extract. This alſo may be taken as the foregoing, in languid caſes, and where the blood wants warmth and invigoration; as alſo in hæmorrhages, and all kinds of fluxes, both theſe extracts are very uſeful medicines, though they have not as yet found a place in the pharmacopæia of the college.

L. E. Vinum Chalybeatum. *Steel Wine.* D. ʒi to ʒſs.

This wine is made of the filings of iron ℥ſs, cinnamon, mace *aa* ʒſs, macerated in lb.4 *m.* of Rheniſh wine for a month, and then ſtrained off for uſe. The *Edinburgh* college directs their ſteel wine to be made of filings of iron ℥ij, cochineal ʒſs, digeſted for ten days in B. A. with lb.2 of Rheniſh wine, and then filtrated. Both theſe tinctures are ſufficiently elegant; for Rheniſh wine is an excellent menſtruum for iron, and diſſolves a conſiderable quantity of it; the

ſpices

ſpices in the firſt give the liquor an agreeable flavour, make it ſit eaſy upon the ſtomach, and promote its medicinal effects; and the cocheneal in the ſecond imparts a fine colour. Steel wine is a very uſeful preparation of this metal; and is frequently exhibited in choloric caſes, and other indiſpoſitions where chalybeates are proper. It is excellent in debility proceeding from over-relaxed ſolids, and in indolent, cold, aqueous indiſpoſitions of the fluids; but it is hurtful where the vital power is already too ſtrong. It may be given in any convenient vehicle, and is very ſuitably joined with ſtomachic bitters in all cachexies and decays of the natural heat of the blood.

L. TINCTURA SATURNINA (*antea dict.*) TINCTURA ANTIPHTHISICA. *Saturnine Tincture, (formerly called) Antiphthiſical Tincture.* D. gut. 20 to 30.

This tincture is made of ſugar of lead, green vitriol, ſeparately powdered *aa* ℥2, digeſted without heat in lb.2 *m.* of rectified ſpirit of wine, then filtrated for uſe. It is given for reſtraining immoderate ſecretions, particularly the colliquative ſweats, attending hective fevers, and phthiſical diſorders; whence the name of antiphthiſical tincture. It is alſo given in hyſterical diſorders, and is undoubtedly a medicine of great efficacy in theſe caſes, but too dangerous to be raſhly entered upon: and indeed the internal uſe of all medicines, into whoſe compoſition, the leaſt quantity of lead enters, ought to be laid aſide, for its violent aſtringency has produced fatal diſorders, even where a ſmall quantity only of lead has been taken.

SYRUPS.

L. SYRUPUS CYDONIORUM. *Syrup of Quinces.*

This ſyrup is made of quince juice depurated lb.3 *m.* cinnamon ʒ2, cloves, ginger *aa* ʒſs, digeſted in the heat of aſhes for ſix hours, then lb.1 *m.* of red wine is added; and to the ſtrained liquor lb.9 of double refined ſugar are added. This is a very agreeable mild cordial aſtringent; and, in ſome kinds of looſeneſs, and diſorders of the ſtomach, may be either taken by itſelf, or employed, for reconciling to the palate and ſtomach, medicines of the more ungrateful kind.

E. Syrupus Kermesinus. *Syrup of Kermes.*

This ſyrup is made of the juice of kermes, with a proper quantity of ſugar. It has an agreeable taſte, and fine red colour; is a good cordial, and corroborant; particularly ſerviceable in weakneſs, and other diſorders of pregnant women.

E. Syrupus de Rosis Siccis. *Syrup of dried Roſes.*

This ſyrup is made of dried roſes lb.ſs, infuſed one night in lb.4 of water, then, after boiling a little, the liquor is ſtrained, and made into a ſyrup, with lb.6 of ſugar. Some have ſuppoſed this ſyrup to be a mild aſtringent; but it is principally valued on account of its red colour.

L. E. Mel Rosaceum. *Honey of Roſes.*

This honey is made of red roſe buds, free'd from the heels, and haſtily dried, ℥4, infuſed in lb.3 of boiling water for ſome hours; to the ſtrained liquor lb.5 *p.* of clarified honey are added, and then boiled to a due conſiſtence. This honey is often made uſe of as a mild cooler and detergent, in gargariſms, for ulcerations, and in inflammations of the mouth and tonſils.

L. Saccharum Rosaceum. *Sugar of Roſes.*

This ſugar is made of red roſe buds, free'd from their heels, haſtily dried, ℥1, mixed with lb.1 *p.* of double refined ſugar, and moiſtened with as much water as is ſufficient to make them into troches. This is lightly aſtringent, and makes an excellent addition to milk in phthyſical caſes.

There is a ſyrup, called *ſyrupus reſtringens*, made of oak bark lb.1, tormentil root, biſtort *aa* ℥2, boiled in one gallon of water to lb.3; to the clear decanted liquor is added of the juice of ſloes, and barberries *aa* lb.1; the College does not take notice of this ſyrup, though it is an excellent reſtringent; and may be truſted in diarrhæas, and in all other fluxes, without the aſſiſtance of any other medicine. In agues, and all other intermittents, it greatly aſſiſts the bark; childrens agues will often yield to the uſe of it alone. It is very proper in all kinds of hæmorrhages, and alſo in female weakneſſes.

L. E.

L. E. Saccharum Saturni. *Sugar of Lead.*

This ſugar is made of ceruſſe of lead, finely powdered, and boiled in vinegar, till the vinegar is ſufficiently ſweet, then filtrated; and, after due evaporation, is ſet to cryſtalize. The ſugar of lead is more efficacious than the calx or ceruſſe, in the ſeveral intentions, to which they are applied. Some have ventured to give it internally, as a ſtiptic, in hæmorrhages, profuſe colliquative ſweats, ſeminal fluxes, *fluor albus*, *&c.* nor has it failed their expectations. It very powerfully reſtrains the diſcharge; but, almoſt as certainly as it does ſo, it occaſions ſymptoms of another kind often more dangerous than thoſe removed by it; violent pains in the bowels, or through the whole body, and obſtinate conſtipations immediately follow; eſpecially if the doſe has been conſiderable. Cramps, tremours, and weakneſs of the nerves in general, ſooner or later enſue. It is externally uſed in unguents, collyriums, *&c.* with great advantage.

L. Lapis Medicamentosus. *Medicinal Stone.*

This ſtone is made of alum, litharge, bole armenic, lb. 1ſs, colcothar of green vitriol ℥3, mixed with ℥4 of vinegar; and then dried over a fire to hardneſs. It is externally employed as an aſtringent for faſtening looſe teeth, preſerving the gums, healing and drying up ulcers and wounds; as alſo in injections for ſtopping a gonorrhæa after the virulence is expelled. There are many other ſtiptic powders made uſe of in private practice; none of which are regarded by the College.

Pulvis Stipticus, *Stiptic Powder*, is made of alum ℥ſs, dragon's blood 32, mixed together; it is a very powerful reſtringent.

Specificum Aſtringens, (commonly called *Calbatch's Stiptic Powder*) is prepared by diſtilling ſugar of lead and filings of iron with ſpirit of ſalt to a dryneſs; and, if you pleaſe, till it aſſumes a red colour. D. gr. 4 to 12. The *ſtipticum regale*, *royal ſtiptic*, is made of the ſympathetic powder, oil of vitriol, and ſpirit of wine: the medicinal virtues of both theſe medicines pretty nearly agree; they are powerful ſtiptics, and vulneraries; good in all kinds of hæmorrhages, and immoderate fluxes, both internally and externally uſed; though the internal uſe of them ſhould be cautiouſly ventured upon. They may be conveniently given in any form, but that of powders and pills. The *pulvis martialis compoſitus*, *compound powder of ſteel*, is made of ſteel prepared 36, aloes, wood-nutmegs *aa* ℥ſs, cloves, mace *aa* 32, ſugar ℥3, powdered and mixed together.

gether. This is good in all cachexies, both in men and women, but particularly in thoſe which ariſe from uterine diſorders. It cleanſes the womb, warms the blood, promotes the menſes, and wonderfully reſtores decayed diſtempered conſtitutions; it ſhould be taken every morning in a glaſs of white wine; and, if a little ſaffron is added, it makes it better, eſpecially for girls, from ſix years of age to the firſt eruption of the menſes; eſpecially if they are pale, and have what is called the *green ſickneſs*; for ſo young does it many times appear. The *pulvis contra abortum, powder againſt abortion*, is made of red roſe leaves, maſtich, aloes wood, red coral, *aa* ℈1, ſpikenard, mace, cinnamon, yellow ſaunders, cardamom, white amber, *aa* ʒſs, powdered and mixed. This may be made into pills, lozenges, *&c.* with their whole weight of ſugar, and mucilage of gum tragacanth. This powder is well enough calculated for the purpoſes expreſſed in its title. The *pulvis cachecticus Quercetani, powder againſt cachexy from Quercetan*, is made of ſteel, prepared with ſulphur ʒ1, arum root, eſſence of ambergris, *aa* 31, coral 32, calcined hartſhorn, amber, cinnamon, *aa* ℈4; of ſugar the weight of the whole, mixed altogether. This powder, though neglected by the College, with a little alteration, is good againſt an ill habit, from a diſorder of one or more of the viſcera; it is alſo good in the jaundice, dropſy, chloroſis, and in all uterine obſtructions. D. ℈1 to 31 twice a day.

PILULÆ, &c.

L. E. Pilulæ Ecphracticæ Chalybeatæ. *Chalybeate Deobſtruent Pills.*

Theſe are compoſed of aromatic pills ʒ3, rhubarb, extract of gentian, ſalt of ſteel *aa* ʒ1, ſalt of wormwood ʒſs, beat into a maſs, and made into pills, with the ſolutive ſyrup of roſes. The *Edinburgh* College directs theſe pills to be made of the maſs of common pills ʒ1ſs, gum ammoniac, reſin of guaiacum *aa* ʒſs, ſalt of ſteel 35, ſyrup of oranges, enough to make the maſs into pills. Theſe pills are well calculated to anſwer the intention expreſſed in the title; 31 may be made into twelve pills, and three of them taken every night in chlorotic or other caſes, where a warm aperient or deobſtruent medicine is proper.

E. Electuarium ad Dysentericos. *Electuary for Dyſenteries.*
D. ℈1 to ʒſs.

This electuary is made of the Japonic confection ʒ2, balſam of locatelli ʒ1, powder of rhubarb ʒſs, made up with a ſufficient quantity of ſyrup of marſhmallows. This is a well-contrived compoſition for the purpoſes expreſſed in its title.

L. E.

L. E. Trochisci e Terra Japonica. *Troches of Japan Earth.*

Theſe troches are made of Japan earth, gum arabic *aa* ℥2, ſugar of roſes, ℥2, with a little diſtilled water. The *Edinburgh* college directs them to be made of Japan earth ℥2, tragacanth ℥ſs, white ſugar lb.1, with a ſufficient quantity of roſe-water. A preparation of this kind, with the addition of a little ambergris and muſk, has been long eſteemed as a mild reſtringent, *&c.* under the name of *Catechu.* Medicines of this claſs in general are excellently fitted for the form of troches, for when they are ſlowly received into the ſtomach, they produce much better effects, than if an equal quantity was taken at once. Theſe troches are ſufficiently palatable, and of conſiderable ſervice in ſome kinds of coughs, thin acrid defluctions, diarrhæas, and dyſenteries, from a laxity of the inteſtines and ſtomach.

E. Lohoch ex Amylo. *Lohoch of Starch.*

This lohoch is made of ſtarch 32, Japan earth 31, balſamic ſyrup, whites of eggs *aa* ℥1, mixed together. It is given as a light reſtringent and detergent in phthiſical caſes.

FORMULÆ EXTEMPORANEÆ.

℞ Flor. chamæm. pulv. 33, alum. rup. myrrh. *aa* 31, m. f. pulv.

℞ Alum. terr. japon. *aa. p. æ.* f. pulv. doſ. ℈1.

℞ Alum. nuc. moſch. *aa* ℈1, f. pulv.

℞ Terr. japon. ſpec. aromatic. *aa* gr.10, ol. cinnam. gut.1 m.

℞ Croc. mart. aſtring. gr.10, ſang. dracon. alum. *aa* gr.5, ſacchar. ſaturn. gr.2 m.

℞ Extract. cort. peruvian. gr.12, ſal. mart. gr.8, cinnamom. gut.1, ſacchar. ℈ſs, m.

℞ Flor. chamæmel. rad. gentian. cinnamamom. *aa* gr.10, croci gr.4 m.

℞ Rad. gentian. nuc. moſch. alum. *aa* ℈1, ol. cinnamom. gut.1, cochenellæ, gr.5 m.

℞ Pulv. maſtich. myrrh. *aa* gr.15, flor. benzoin. gr.5 m.

℞ Rhubarb. gr.10, cinnamom. maſtich. *aa* gr.5, ſal. mart. croci gr.5 m.

℞ Sal.

℞ Sal. mart ʒ2, nuc. moſch. zingib. *aa* ʒ1, ol. cinnam. gut.5. conſerv. flav. cort. aurant. *aa* ℥1, ſyrup. balſam. q. ſ. ut f. elect.

℞ Alum. gr.15. extract. cort. peruvian. N. M. *aa* gr.10, ſyr. balſ. q. ſ. f. bolus.

℞ Alum. gr.15, conſerv. roſar. ℈1, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Terr. japon. ℈2, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Chalyb. cum ſulphur. præp. ʒ2, croci ℈1ſs, extract. gentian. q. ſ. f. pilulæ.

℞ Extract. cort. peruvian. dur. ʒ1, ſal. mart. ol. cinnam. gut.5, balſ. peruvian. q. ſ. f. pil.

℞ Spec. aromatic. extract. gentian. *aa* ʒ1, extract. cort. peruv. ℈ſs, elix. proprietat. q. ſ. f. pil.

℞ Extract. cort. peruvian. ʒ1, ol. cinnamom. — menth. *aa* gut.10, ſacchar. ℥4, gum. tragacanth. q. ſ. f. trochiſci.

℞ Flor. chamæmel. ℥2, aq. commun. lb.3, coq. ad lb.2, cola; cui adde ſal. tartar. ʒ2. Doſ. ℥3, bis vel ter in die.

℞ Terr. japonic. ʒ2, coq. in aq. fontan. lb.1 ad dimidium; cui adde aq. cinnamom. ſpt. ſyr. cydon. *aa* ℥2.

℞ Aq. cinnamom. ſimpl. ℥7 — ſpt. ℥2, elect. e ſcordio ʒ1 m.

℞ Terr. japon. ℈2, aq. cinnam. ſimpl. ℥2, ſyr. croci vel ſyr. e mecon. ʒ1, f. hauſtus.

℞ Vitriol. cærul. gr.10, aq. cinnam. ſimpl. lb.1, f. tinctura doſ. cochl. 1.

℞ Extr. lign. camp. ʒ3, ſolve in aq. cinnamom. ſpt. ℥ſs, adde aq. pur. ℥3, doſ. cochl. 2.

℞ Tinct. japon. ʒ2, aq. alexet. ſimpl. ℥ſs tinct. thebaic. gut.15, ſyr. cydonior. ʒ1, f. hauſtus.

℞ Tinct. ſaturn. gut.20, aq. cinnam. ſimpl. ℥2, f. hauſtus.

℞ Extr. lig. campech. ʒ3, ſol. in tinct. cinnam. ℥1, add. aq. fontan. ℥7, tinct. japonic. ʒ2 m. doſ. cochl. 2 quarta vel quinta quaque hora.

℞ Tinct. mart. ʒ1, in aquæ cyath. ſumend.

℞ Vin. chalybeat. cochl. bis in die.

℞ Cort. peruvian. ℈1, aq. cinnam. ſimpl. ℥2 — ſpt. ſyr. e cort. aurant. *aa* ʒ1, f. hauſtus.

CHAP. III.

Of ABSORBENTS.

THE learned Sir *John Pringle* hath diſcovered, that the teſtacea, alſo farinaceous vegetables, flour, barley, and oat-meal, are ſeptics.

The high opinion that Phyſicians of the laſt century, entertained of teſtacea, was founded on an hypotheſis, that moſt diſeaſes proceed from an acid, not even excepting fevers. Now, though the theory is at preſent much limited, yet the practice is ſtill common, at leaſt, in acute diſtempers; ſome uſing theſe powders from cuſtom only; others with a view to neutralize the acids, and fit them for entering the lacteals, and promoting a diaphoriſis; otherwiſe it does not appear how theſe abſorbents ſhould correct any acrimony, either in the *primæ viæ*, or in the blood.

But whatever diſputes have ariſen about their manner of operating, almoſt all have agree'd in believing them harmleſs; though from ſeveral experiments they do not always appear to be ſo. They do indeed deſtroy acids, and may be alſo judiciouſly given in the cure of ſome diſeaſes, when it may be requiſite to attenuate the humours, and relax the fibres, by ſome degree of putrefaction. *Hippocrates* obſerves, that a fever is the beſt remedy for ſome diſeaſes; and that the primary effects of mercurials conſiſt in a ſeptic reſolution, both of the fibres and humours; poſſibly therefore the criſis of ſome fevers may be haſtened, or perfected by the teſtacea; which are ſubſtances endowed with a conſiderable putrifying quality.

SIMPLICIA.

LIGNA.

Santalum Rubrum & Citrinum. *Red and yellow Saunders.*

There is a white, a yellow, and red ſaunders, brought from the *Eaſt-Indies*. The yellow, diſtilled with water, yields a fragrant eſſential oil; which thickens in the cold to the conſiſtence of a balſam: digeſted in pure ſpirit it imparts a rich yellow tincture; ſome think it equal in virtue to the ambergris; is an excellent reſtorative in great debilities; and a mild aſtringent and corroborant of the nervous ſyſtem. The red comunicates a deep red colour to rectified ſpirit; but none to aqueous liquors: it is uſed in little elſe but in colouring of drugs. Sometimes the *Brazil* wood is ſubſtituted to the red ſaunders; and the only difference between them is, that the *Brazil* wood imparts its colour to common water.

Extractum Ligni Campechenſis, *Extract of Logwood*, is kept in the ſhops; has an agreeable ſweet taſte, with ſome degree of aſtringency; good in diarrhæas, for blunting the acrimony of the juices, and moderately ſtrengthening the inteſtines and orifices of the ſmaller veſſels: during the uſe of it, the ſtools are generally tinged of a red colour. The doſe is from ℈1 to ʒſs, five or ſix times a day.

Mastiche. *Maſtick.*

Has an agreeable though faint ſmell, and a rough pungent taſte; grows in the iſland of *Chio*, and affords the reſin called *maſtich*; is balſamic and reſtringent; good in catarrhs, nauſea, and weakneſs of the ſtomach; promotes the urinary ſecretions; and ſtrengthens the tone of the viſcera.

Guaiacum. D. gr. 10 to ʒ1.

Grows in the *Spaniſh Weſt-Indies*; of a light aromatic, bitter, pungent taſte: the wood, bark, and reſin (called *gum guaiacum)* are in uſe in phyſic; the wood is very ponderous; the outer part is of a yellow colour; and the inner of a deep blackiſh

blackiſh green, or variegated with other colours: the bark is thin and ſmooth, of a dark-grey hue; it is acrid and unpleaſant. The reſin has a dark-grey colour, with a red caſt; and is more acrid and unpleaſant than either the wood or bark. They all warm, ſtimulate, and ſtrengthen the ſtomach and other viſcera; promote the urinary and cuticular diſcharges; good in ſcurvies, cutaneous and other diſorders, proceeding from obſtructions of the excretory glands; and where ſluggiſh ſerous humours abound. Rheumatiſm and gout are often relieved by them; for they deterge and cleanſe the joints, and mucilaginous glands, from tartarous matter; warm and ſtrengthen the nerves, and enable them to move with greater vigour, to ſhake off and prevent the lodgment of noxious particles upon them. Guaiacum ſometimes cures the *lues veneria*, when mercury has failed; it cleanſes and purifies the blood, and dries up ſuperfluous humidities upon the joints; and proves a certain diaphoretic. The extract procured by water is much weaker than that by ſpirit; the latter poſſeſſes all the virtues of the native reſin, and is ſomewhat purer: to have its whole virtues by decoction, it ſhould be long boiled. There is an extract kept in the ſhops, called *extractum ligni guaiaci molle & durum, ſoft and hard extract of guaiacum*, which poſſeſſes nearly all the virtues of the wood: the reſinous parts of the wood, which are boiled out with water, are apt to ſeparate towards the end of inſpiſſation; but in order to keep them united with the reſt of the matter a little ſpirit of wine ſhould be added.

Reſina Guaiaci, Reſin of Guaiacum, differs only from the extract, in having rectified ſpirit of wine for its menſtruum, in place of water. The reſin extracted from wood, bark, or gum, are the ſame in quality: ſixteen ounces of the wood generally yield three ounces of reſin; the ſame quantity of gum yields nine or ten ounces; and the ſame quantity of the bark yields ſomewhat leſs reſin than the wood.

Sassafras.

Is the root of an *Armenian* tree; of the virtues of guaiacum, though not quite ſo hot; it is a warm, aperient, and corroborant; purifies and ſweetens the blood and juices: the decoction of ſaſſafras, boiled down to the conſiſtence of an extract, is ſimply bitter and ſubaſtringent; a ſcruple given at a time, remarkably ſtrengthens the tone of the viſcera in cachexies, and in the decline of intermittent fevers; and alſo in hypochondriacal ſpaſms, and in venereal caſes it has good effects. It yields, in diſtillation, an extreme fragrant ponderous oil:

rectified ſpirit extracts its whole taſte and ſmell ; but elevates nothing in evaporation.

RADICES.

China.

Is a root brought from the *Indies* ; of a pale-red colour, without either ſmell or taſte ; it promotes inſenſible perſpiration, and the urinary diſcharges ; obtunds acrimony ; and is good in rheumatiſm, gout, palſy, venereal and nervous diſeaſes. It has now, however, given place to medicines of a more powerful kind.

Sarsaparilla. D. ℈i to ℥ß.

Is a root brought from the *Spaniſh Weſt-Indies*, is long, and about the thickneſs of a gooſe quill ; has a glutinous, bitter, ungrateful ſmell ; is of ſome uſe as a ſudorific ; and in obſtinate, chronical, and venereal caſes : an ounce of the watery decoction, or a dram of the extract, given for one doſe, has often done great ſervice.

ANIMALIA, &c.

Cancrorum Oculi & Chelæ. *Crabs Eyes and Claws.* D. ℈i to ℈ß.

The firſt is a ſtony concretion, found in the head of craw fiſh ; the other is the black tips of the crab's claws. They abſorb acidities in the *primæ viæ*, in children and adults of weak conſtitution. Sundry diſeaſes ariſe from acidities, eſpecially in children ; which are known by ſour eructions, pale colour of the face, and by the ſour ſmell and green colour of the fœces ; in theſe caſes abſorbent earth are indicated ; but, if there is no acid, they are ready to concrete in the ventricles with the mucous matter that is lodged there, and to form into hard indiſſoluble maſſes ; hence indigeſtion, loſs of appetite, nauſea, vomiting, obſtructions of the bowels, *&c.* ariſe. The ſtomach and bowels ſometimes have been found lined with a cruſt, as it were of earthy bodies ; which not only prevented the ſeparation of the gaſtric liquor, but likewiſe cloſed the orifices of the lacteal veſſels, ſo as to obſtruct the paſſage of the chyle into the maſs ; and the finer they are powdered, the more they are diſpoſed to form ſuch concretions, and enabled to enter and obſtruct the orifices of the ſmall veſſels.

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The animal abſorbents contain, beſides their purely alkaline earth, a portion of glutinous matter, which increaſes their tendency to concretion in the ſtomach. The *white and red coral*, or *ſea moſs*, is of the ſame nature and virtues; and may be joined with the others in preſcriptions, eſpecially in childrens fits.

Bolus Armena. *Armenian Bole, &c.*

All theſe earths, called *terræ ſigillatæ*, are viſcid earths leſs coherent, and more freeably than clay; they are rarely found genuine in ſhops, and are very little called for: they are ſaid to be good aſtringents, ſudorifics, and alexipharmics; but, its very doubtful, if they are good for any thing, except in diarrhæas and dyſenteries.

Magnesia Alba. D. gr. 8 to 31.

If the liquor, which is left after the cryſtalization of a ſolution of rough nitre, be evaporated to a dry ſubſtance, and afterwards calcined ſome time in a crucible, there will remain a white powder, called *magneſia alba*. *Newman* ſays, if common ſlaked lime be moiſtened with a little ſpirit of nitre, and then moderately calcined, you have a powder perfectly agreeing in virtues with the magneſia; which is, at beſt, a precarious medicine, and is, by no means, equal to the character that has been given of it. It is compoſed of ſome of the calcarious earth employed in the elixation of the nitre, united with a ſmall portion of nitrous and marine acids; the quantity of which will be different, according to the degree and continuance of the fire in calcination. It has been celebrated as an excellent purgative in large doſes, and in ſmall ones, as an alterant in hypochondriacal and other diſorders. That it hath not a general purgative quality in reſpect of children, is evident from experience; nor has it perhaps in any caſe, except when it meets with a ſufficient quantity of acid in the *primæ viæ*, it is again converted thereby into a ſaline ſtate; for it is the obvious property of earths, in their ſimple ſtate, rather to bring on a coſtiveneſs, than to promote a catharſis: it is nevertheleſs certain, that it will cure the heart-burn, and will correct and ſweeten all ſourneſs and acidities, rather better than the teſtaceous powders; and where acidities greatly abound, it will prove to children a gentle lenient purge, and keeps the body gently open. It may be given to children, from ʒ1 to ʒ2, once a day, giving a little at a time in their food, till the acidities are quite overcome, and the concomitant ſymptoms entirely diſappear. The firſt and general

neral cauſe of the diſeaſes of infants, is an acid corruption of their food; and a predominant acid is well known by the green ſtools, gripes, and purgings, occaſioned by it.

PRÆPARATA.

OLEA, &c.

L. Oleum e radice Sassafras Essentiale. *Eſſential Oil of Saſſafras.*
D. gut. 1 to 10.

Is the moſt ponderous of all the known eſſential oils; appears as limpid as water; has a moderately pungent taſte, and very fragrant ſmell, reſembling ſaſſafras itſelf; is greatly commended as a ſudorific, and for purifying the blood and juices; and is alſo good in humoural aſthmas and coughs, rheumatic pains, and in ſome venereal caſes.

L. Tinctura Guaiacina Volatilis. *Volatile Tincture of Guaiacum.*
Gut. 20, 32ſs.

Is obtained of gum guaiacum ℥4, digeſted in a cloſe veſſel, without heat, in volatile aromatic ſpirit lb.1ſs *m.* and then ſtrained. This is a very elegant and efficacious tincture, and poſſeſſes the virtues of the gum, whoſe medicinal virtues are promoted by the volatile ſpirit; in rheumatic caſes, a tea-ſpoon-full taken two or three times a day, in any convenient vehicle, has proved of ſingular ſervice.

L. Balsamum Guaiacinum. *Balſam of Guaiacum.*

Is made of gum guaiacum lb.1, balſam of peru ʒ3, digeſted, till the gum is diſſolved, in rectified ſpirit of wine lb. 2ſs *m*, then ſtrained off. The *Edinburgh* College prepared it of gum guaiacum ℥6, balſam of peru ℥ſs, digeſted in a ſand-heat for four days, with rectified ſpirit of wine lb.2; and to the ſtrained liquor there was added eſſential oil of ſaſſafras. Both theſe compoſitions are medicines of great efficacy, and capable of anſwering many uſeful purpoſes: they warm and ſtrengthen the habit, and promote inſenſible perſpiration: therefore good in rheumatiſms, ſcorbutic and ſcrophulous caſes, eſpecially if the patient

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is of a cold phlegmatic temperament; alſo in gleets, and in other ill conſequences of a weak-relaxed ſtate of the ſolids. Gut. 20, or 30, may be taken two or three times a day, or oftener, in any proper vehicle. *Le Mort* gives an admirable and moſt compendious medicine, ſimilar to the above in virtues, but ſuperior, called, *elixir antevenerium*, *elixir againſt the pox*, made of balſam of copaiba ℥1, gum guaiacum ʒ2, oil of ſaſſafras ʒſs, rectified ſpirit of wine ℥5, digeſted together, with a ſmall mixture of the ſalt of tartar, two or three days; and then what is fine is poured off for uſe. This carries all that can be wiſhed for into the blood, that is of a deterging, cleanſing, and healing quality; and not only cures venereal ulcerations in the urethra, called a *clap*, but alſo does the ſame ſervice in any other ulcers; cures decays of the lungs, kidneys, and other viſcera: it may be taken, in any convenient vehicle, twice or thrice a day, in doſes of gut. 30 or 40.

The *balſamum commendatoris*, *baume de commendeur*, is made of dry *Peruvian* balſam ℥1, ſtorax in the tear ℥2, benjamin ℥3, myrrh, olibanum, angelica roots, St. *John*'s wort, flowers, *aa* ℥ſs, digeſted, in a glaſs veſſel cloſely ſtopt, with a heat, equal to that of the ſun; for a month or ſix weeks, with ſpirit of wine by weight; then the balſam is ſtrained for uſe. This balſam is kept a ſecret under the titles of *balſamum Perſicum*, *balſam of Berne*, *Wade's balſam*, *Friar's balſam*, *Jeſuits drops*, *&c.* It ſtands greatly recommended externally for cleanſing and healing wounds, and ulcers, even of the cancerous kind, for diſcuſſing cold tumours, allaying gouty, rheumatic, and other old pains and aches: and likewiſe internally for warming and ſtrengthening the ſtomach and inteſtines, expelling flatulencies, and relieving cholicy complaints: outwardly it is applied cold to the part affected with a feather; inwardly a few drops are taken at a time in wine, or any other convenient vehicle.

L. E. Balsamum Traumaticum. *Traumatic or Vulnerary Balſams.*

Is made of benzoine ℥3, ſtorax ſtrained ℥2, balſam of tolu ℥1, ſocotorine aloes ℥ſs, digeſted with rectified ſpirit of wine lb.2 till all are diſſolved; and then the balſam is ſtrained. The *Edinburgh* College omits the ſtorax, and uſes the ſocotorine aloes in place of the hepatic. This is an elegant reform of the balſam de commendeur, conſiderably more ſimple, yet not inferior in efficacy.

JULEPA

JULEPA ET PULVERES.

L. Julepum e Creta. *Julep of Chalk.*

Is made of the whiteſt chalk, prepared ℥1, double-refined ſugar 36, gum arabic 32, mixed all together with water lb.2; this is deſigned for heart-burns, and other diſorders ariſing from acid juices in the firſt paſſages; it alſo ſoftens and obtunds thin acrimonious humours.

L. Pulvis e Bolo Compositus sine Opio. *Compound Powder of Bole without Opium.* D. ♃ to ʒſs.

Is made of bole armenic, or *French* bole lb.ſs, cinnamon ℥4, tormentil root, gum arabic *aa* ℥3, long pepper ℥ſs, reduced into powder.

L. Pulvis e Bolo Compositus cum Opio. *Compound Powder of Bole, with Opium.*

Is made of ſtrained opium dried and pulverized 33, and mixed with the foregoing ſpecies. This powder, with opium, is an elegant reform of the ſpecies of *Tracaſtorius*'s confection, commonly called *diaſcordium*; gr.45 of the powder contain gr. 1 of opium: the powder is directed to be kept without opium for caſes where the aſſiſtance of that ſoporific drug is not wanted; it is a warm glutinous aſtringent; and in fluxes or other diſorders, where medicines of this claſs are proper, generally does great ſervice.

L. E. Pulvis e Chelis ♋ Compositus. *Compound Powder of Crabs Claws.*

This powder is made of the tips of crabs claws prepared lb.1, pearls prepared, red coral prepared *aa* ℥3, mixed together. The *Edinburgh* college directs this powder to be made of the black tips of crabs claws ℥2, of red coral ℥1, mixed together. This powder has loſt ſeveral of its ingredients, particularly the oriental bezoar, without ſuffering any injury in its virtues; and if the pearl and red coral were left out, it would remain as effectual as with them; for the only intention this powder is deſigned to anſwer, is to abſorb acidities in the *primæ viæ*; but if there are no acidities, they rather do hurt, as has been already obſerved.

obſerved. This contains all the uſeful ingredients of the *Pulvis Cantianus*, the *Counteſs of Kent's Powder*. They were formerly exhibited in fevers, as alexipharmics, and ſudorifics, but that practice is now juſtly exploded; tho' they are of great ſervice in the febrile diſorders of infants upon the breaſt, which frequently ariſe from a redundency of acid humours in the *primæ viæ*.

L. Pulvis Bezoardicus. *Bezoardic Powder.*

This is nothing but the foregoing powder with the addition of oriental bezoar, which is both a coſtly and inſignificant drug, that deſerves neither room in the ſhops, nor a place in compoſition. The *Edinburgh* college has entirely expunged it.

Pulvis Anticardialgicus. *Powder againſt the Heart-burn.*

Is made of white chalk ℥6, crabs eyes and claws *aa* ℥iſs, ſugar-candy ℥ſs, oil of nutmegs gut. 6, mixed altogether. This is an infallible cure againſt heart-burns; one dram may be taken at a time in a draught of cold water.

L. Tabellæ Cardialgicæ. *Cardialgic Lozenges.*
E. Trochisci Cardialgicæ. *Cardialgic Troches.*

Theſe lozenges are made of chalk prepared ℥4, crabs claws prepared ℥2, bole armenic, or *French* bole ℥ſs, nutmegs ℈1, double refined ſugar ℥3, reduced into lozenges, with a ſufficient quantity of water. The *Edinburgh* college prepares their troches of oyſter ſhells prepared, white chalk powdered *aa* ℥2, gum arabic ℥ſs, nutmegs ℥ſs, white ſugar ℥10, with a ſufficient quantity of water. Theſe compoſitions are calculated againſt that uneaſy ſenſation at the ſtomach, improperly called the heart-burn. They ſometimes give immediate relief by abſorbing and neutralizing the acid juices that occaſion this diſorder.

Electuarium e Sassafras. *Electuary of Saſſafras.* D. 31 to 2.

This electuary is made of ſaſſafras ℥2, boiled in lb.2 of water, to the conſumption of one third, adding, towards the end, of cinnamon bruiſed ℥ſs; the liquor being ſtrained, is again boiled with lb.1 of fine ſugar, to the conſiſtence of a thick ſyrup, into which are ſtrained of ſaſſafras powdered ℥1, cinnamon ʒ1, nutmegs ℈1, and the whole mixed together. This is a very grateful medicine, and good in all caſes where abſorbents and ſweetners are ordered: one or two drams may be taken twice or thrice a day.

FORMULÆ EXTEMPORANEÆ.

℞ Cret. præp. ʒ2, gum. arab. ʒſs, f. pulv. coque in aq. fontan. q. ſ. ad cong. 1.

℞ Lign. guaiac. ℔ 8, aq. fluvial. cong. 16, f. maceratio tepida per horas ſex; dein coque per hor. 6, colaturæ cong. 10, per ſubſidentiam depura.

℞ Cancr. chel. pulv. ʒſs, aq. alexet. ſimpl. ʒiſs, ſyr. croci ʒ1, f. hauſtus.

℞ Julep. e cret. ʒiſs, aq. nuc. moſch. ſyr. e cort. aurant. āā ʒ1, f. hauſtus.

℞ Sal. c. c. gr. 10, aq. menth. vul. ſimpl. ʒ2, ſyr. violar. ʒ1, f. hauſtus.

℞ Aq. alexet. ʒ4 — aromatic. ʒ2, confect. cardiac. ℈1. pulv. terr. japon. ʒ1, laudan. liquid. gut. 20, ſacchar. alb. ʒ4, m. f. julep. doſ. cochl. 1, bis vel ter in die.

℞ Bol. armen. præp. ʒ3, rad. tormentil. nuc. moſch. oliban. āā ʒ2, opii purific. ʒiſs, ſyr. roſar. q. ſ. D. ʒi ʒ4.

℞ Bol. armen. ʒ1, eretæ ʒ1, coque in aq. font. ℔ 3 ad ℔ 1 ʒ10 cola; ad. aq. cinnam. ʒ2, ſyr. e meconio ſyr. cydon. āā ʒ6, doſ. ʒ4.

℞ Terr. japon. ʒ2, coq. in aq. font. ℔ 1, ad ʒ12, cola adde aq. cinnam. ſyr. cydon. āā ʒ2.

℞ Guaiac. ſaſſaf. āā ʒ3, ſantal. citr. et rub. āā ʒ2, pulv. terr. japon. ℈iſs, glycyrrhiz. ʒ1, ſalviæ M. coq. in aq. hodeat. ℔ 3, ad ℔ 2, cola; cui adde ſyr. papav. ʒ2, D. ʒ2 vel 3 ter in die.

℞ Raſur. ſaſſaf. ʒ2, guaiac. ʒ1, glycyrrhiz. ʒ3, ſem. coriand. contuſ. ʒ6, infunde in aq. calcis c. cong. 1, per 2 vel 3 dies.

℞ Magn. alb. ʒ2, cinnab. fact. gr. 12, f. pulv. doſ. ℈1, pro infante.

℞ Oſtrear. teſt. ℔ 1, cret. alb. ʒ6, m. D. ℈2.

℞ Ceret. alb. occul. ℈ ſacchar. pur. āā ℈1 m.

℞ Bol. armen. præp. coral. rub. āā gr. 16 m.

℞ C. C. C. bol. armen. āā gr. 15, cret. alb. ſacchar. āā gr. 10 m.

℞ Æthiop. mineral. ʒ6, antimon. ℔ 1 m.

℞ Cret. præp. ℈1, nuc. moſch. gr. 10, ſyr. ſimpl. q. ſ. f. bolus.

℞ Sal. tartar. gr. 12, conſerv. roſar. rub. ℈1, ſyr. e cort. aurant. q. ſ. ut f. bolus.

℞ Conſerv. ſummit. abſinth. marit. cinnab. antim. gum guaiac. āā p. æ. ſyr. ſimp. q. ſ. M.

℞ Terr. jap. ʒ2, ol. cinnam. gut. 6, confect. Paulin. q. ſ. f. pil.

℞ Sang. dracon. cret. fav. āā ʒ2, terr. japon. ſperm. cet. āā ʒ1, ol. cinnam. gut. 12, ſyr. e meconio q. ſ. f. pil.

SECTION

SECTION IV.

Of STOMACHICS.

UNDER this diviſion we comprehend thoſe medicines, which, by their peculiar warmth, give both a grateful ſenſation, and ſuitable tenſity, to the fibrous coats of the ſtomach and inteſtines. By their aſtringent and aromatic virtues they warm the habit, attenuate the fluids, ſupply the deficiency of the bile, and promote the natural evacuations, particularly of ſweat and urine. Therefore medicines under this claſs are of great ſervice, in weakneſs of the ſtomach, loſs of appetite, indigeſtion, and in all diſorders from a laxity of the ſolids, or from a cold, ſluggiſh indiſpoſition of the fluids. Where the fibres are already too tenſe and rigid, or where there is an immoderate heat or inflammation, this claſs of medicines increaſe the diſtemper.

Medicines under this head deſtroy worms and inſects, and prevent putrefaction.

But, in order perfectly to underſtand the diſeaſes, theſe medicines are deſigned to cure, and alſo to know their manner of operation, it will be neceſſary to conſider the nature of *fermentation*, and *digeſtion*, which is the conſequence of fermentation in the bodies of animals.

CHAP. I.

Of FERMENTATION.

FERMENTATION is an inteſtine motion amongſt the heterogeneous parts of any body; by which it is, by ſome means, agitated, and grows full of air; for air is always produced by fermentation.

Some define fermentation to be an effort of the ſalts, to diſengage themſelves of the oily parts, with which they are incumbered; and, by opening and dividing them, the ſharp and keen edges of the ſalts diſentangle themſelves of their impediment.

But fermentation ought not to be confined to a juſtle between two oppoſite ſalts, as an acid and an alkali; but it is rather a violent attrition and colliſion of the particles of matter againſt each other; which is ſometimes ſo great as to produce ſmoke, and flame; for fire, light, and heat are not a fluid, *ſui generis*, but a local motion of the ſmall parts of a body, mechanically modified by certain conditions, of which the principal is the vehement and various agitations of the ſmall inſenſible parts; and that *quaqua verſum*, whereby the aër *Mephriticus*, or ſubtile acid ſpirit, which cements all bodies, is diſengaged, and ruſhes forth; and the greater this inteſtine motion is, the greater proportion of the acid ſpirit will be detached; and the nearer the body will be to putrefaction or diſſolution.

We ſee this in wine; which, all the winter, has had only a ſmall motion of its particles, when the rays of the ſun become powerful, then the motion of the ſubtile æther becomes ſtronger; and the veſſel containing the wine would burſt, if it had no vent. Therefore the rarefaction of vinous liquors ariſes from the effect of the circumambient air upon the particles of the fluid; whereby an additional preſſure is put upon the ſubtile acid ſpirit, which cements the atoms of the fluid together; and accordingly it is obliged to preſs more ſtrongly, force its way, and obtain liberty from its confinement. This we may explain by conſidering the changes that happen to the grape, and how the ſalts preſerve themſelves under the different vehicles, in which they are incloſed.

The grape at firſt, when it is very green, is ſharp and ſtiptic; becauſe its ſalts are ſhut up in ſomething of earth, which has not yet been ſufficiently digeſted by the heat of the ſun. As the grape grows, the juice is leſs ſtiptic, and more ſharp; then there is a ſmall fermentation which has, in ſome manner, rarified and ſoftened the fibres of the grape; by which means, the ſalts are a little more free'd from their earth, and ſo prick the tongue more than they did before: when it is ripe, it leaves its ſourneſs, and turns ſweet; becauſe the fermentation it has received extends the oily parts, which did not before appear; though actually in the fruit. Now they cover and incloſe the ſaline points, and prevent their

their pricking the nerves of the tongue ſo much as before, but contribute to give a taſte to the grape; for, if there were no ſaline parts in the grape, the oily particles would paſs ſlightly upon the tongue, and give a very inſipid taſte: the more the grape ripens, the ſweeter it grows; becauſe the oil does ſtill better mix with the acids. The juice of the grape, while it continues in fruit, never ferments ſufficiently to become wine; but as ſoon as it is ſqueezed out, by breaking the fibres of the fruit, and changing the diſpoſition of its parts; then follows a violent fermentation; which rarifies the oil, and gives freedom to the acid ſalts; which occaſions the agreeable pricking of the tongue that wine gives: and the more or leſs liberty the ſalts have to expand and rarify the oil, the more or leſs ſweet the wine is.

But, *laſtly*, there happens a fermentation, which fixes and deſtroys, in ſome meaſure, the ſulphureous ſpirit of wine, and ſets the acid at full liberty, as we ſee in vinegar: theſe acids continue a long time; but being moved, and continually agitated by the ſulphurs which intangle them, at laſt evaporate, and leave the vinegar almoſt inſipid.

All fermentations are only diſſolutions by acids. The fermentation of wine, we ſee, happens from the acid diſſolving the oily part of the muſt.

The fermentation of dough, and other matters of the ſame nature, does proceed from this; that the natural ſalts having been put in motion by trituration, or ſome other cauſe, do rarify and diſſolve as much as they can, whatſoever reſiſts their motion: but becauſe theſe acid ſalts do exert their effects, by little and little, and meet with ſome reſiſtance, the ſolution is made ſlowly; and the diviſion of ſome of the parts is obtained with difficulty; and is what cauſes the matter to ſwell, and occupy a greater ſpace than before.

Leven does increaſe the fermentation of dough, becauſe it is a paſte wherein the ſalts are free to act, by means of a long fermentation; theſe ſalts do eaſily join with thoſe of the dough, and help them to rarify and diſſolve the whole: but when the acids have rarified the matter as much as they are able, they loſe their motion in it, and then the matter coagulates, that is, returns to the ſame extenſion as before.

Now

Now acids do ſometimes diſſolve and rarify; and, at other times, precipitate; an acid proves always diſſolvent, when there is a ſufficient quantity poured apon the matter to be diſſolved; but when too ſmall a quantity is uſed, then it forms a coagulum; becauſe its points are fixed in the pores of the matter, and have not power enough to get out. For example, If you pour acids upon milk, (which is compoſed of ſerum, and a creamy ſubſtance, ſuperficially mixed with it by the interpoſition of ſome ſalt) by their ſharp edges they cut the creamy part to gain entrance into the ſerum. If the oily part is ſufficient to ſhut up the acids, then there forms a coagulum; but, if you ſtill add more acids, the creamy part will preponderate by its own ſpecific gravity, acquired from its coagulum.

After the ſame manner we may account for the coagulation of milk by heat. In ſummer the acid ſpirit, in the atmoſphere, is in a more rapid motion than in winter; and, by its motion, it ſtirs up the acid contained in the milk before embodied in the oil, which prevented its motion; but the acid ſpirit of the air rarifies the oily part of the milk, and ſets the ſalts at liberty, which mix with the ſerum as ſoon as they are diſengaged from the oily part.

Though acids cauſe fermentation and putrefaction, yet they alſo preſerve certain bodies from both; as fleſh, cucumbers, *&c.* The reaſon of which is, that the parts of cucumbers, and other ſluggiſh and viſcid bodies, prevent the acids from having a free motion to make their juſtles, and to divide the parts minutely; ſo that the acids do only fix in the pores, and coagulate; and it is this coagulation which hinders the cucumbers, *&c.* from corruption; for the acids do ſhut their pores, and ſerve for ſo many little pegs, wherewith to ſuſtain their parts firm and quiet, and thereby to reſiſt the action of the aër *Mephriticus*. The coagulation then made by acids may be juſtly called an imperfect diſſolution of bodies, and the firſt ſtep to corruption: Fermentation is the ſecond; and putrefaction finiſhes the work. There are, however, many ſteps or degrees in fermentation and putrefaction; juſt as there are many degrees of heat in a body before it takes fire; and as it burns and ſuſtains the force of the fire ſome time before it is conſumed, and as heat always increaſing, will end in the diſſolution of the body; ſo whatever has a power of promoting fermentation, has likewiſe a tendency to produce putrefaction; for every degree of advancement in fermentation, is a ſtep towards putrefaction; for putrefaction and fermentation are different ſtages of the ſame; as appears from this, that they always follow in order, one after the other, in the ſame ſubject; that is,

is, if a body, after fermentation, is placed in a proper degree of heat, it will immediately run into a ſtate of putrefaction. Putrefaction is one of the inſtruments of nature, to bring about many great and ſalutary changes in us: neither animal nor vegetable ſubſtances can become aliment, without undergoing ſome degree of putrefaction. Many diſtempers proceed from a want of it; the criſis of fevers depends much upon it; animal heat, and the circulation of blood are increaſed by it.

CHAP. II.

Of DIGESTION.

LET us now ſee, whether, from what hath been ſaid, in the preceeding Chapter, we can find any thing to illuſtrate the nature of the digeſtion of aliment in the ſtomach.

The concoction of our aliment is a true fermentation, and ſome degree of putrefaction; which is evident from this experiment: take a paſte, made up of the ſame vegetable and animal ſubſtances, that conſtitutes our food, mix it with water and ſmall-beer till it is of the ſame conſiſtence as our aliment, when received into the ſtomach; then incloſe it in a veſſel, with a degree of heat equal to that of the ſtomach; ſhake it now and then, as the ſtomach does the aliment in the operation of digeſtion; and this maſs will ſpontaneouſly run into fermentation, without any exciting ferment, and will ſoon turn into a putrid ſtate, and detach large quantities of air. How is it poſſible then to conceive that the ſame mixture does not ferment and putrify in the body, ſeeing it contains enough of ſalts and ſpirits; which being acted upon, by the heat and trituration of the fibres of the ſtomach, and the air we take in by inſpiration, ſoon break all their chains, and find a vent; whence follows an attenuation of the aliment into a chylous ſubſtance; and chylification is greatly promoted by the atmoſphere; which is a ſubtile medium replete with ſalt: or rather, to ſpeak more properly, is itſelf an acid ſalt, or ſpirit in motion; which motion it receives from the body of the ſun, which is a globe of fire, or the ſame acid ſpirit more rarified; this ſubtile medium is the fountain of animal and vegetable life and motion; and is the cauſe of all the revolutions of our planetary ſyſtem. The herbs receive their growth and nouriſhment, and the ſalt they are found to contain, from the ſucceſſive undulations of freſh air; and we need not be at a loſs to conceive how our bodies

bodies contain ſo much ſalt, when we conſider how much freſh air we inſpire both by the lungs, and every other part of the body. 'Tis the air, in a morbid ſtate, that is the cauſe, or at leaſt the great promoter of moſt cutaneous, epidemical infections and variolous diſeaſes; for upon receiving the contagious myaſma, the fluids are ſpoiled by an aſſimulating ferment; which, acting upon the ſolids, occaſions a ſhutting up of the pores of the ſkin, by which means that volatile ſpirit, or acrid ſubtile matter which is uſed to paſs off this way, is retained in the body, and mixes with the maſs of blood, which it melts down to mere gore: but as ſoon as the morbid matter is evacuated, and a free paſſage opened to the circumambient air, then the patient finds his health return.

It is this acid ſpirit, which, mixing with the ſaliva, when the ſtomach is empty, occaſions that irritation of its coats, which we call hunger.

In digeſtion the ſaliva of a healthy perſon ſerves only for a vehicle to moiſten the aliment, to regulate the fermentation, and cauſe it to go on more regularly and ſlowly, and to prevent flatulencies and acidities in the *primæ viæ*. But if the ſaliva is deficient, unſound, or not well mixed with what is ſwallowed, then the aliment may firſt putrify, then grow acid, and in that action ferment ſtrongly, and generate much air in the ſtomach and bowels. But though the ſaliva of a healthy perſon rather retards than haſtens fermentation; yet the bile conſiderably promotes it. Hence we ſee in the jaundice, the digeſtion is very weak, which is not however to be recovered by bitters; for indigeſtion in the jaundice proceeds from an imperfect fermentation, and all bitters retard fermentation. The teſtaceous powders ought to be joined with the bitters.

When the food in the ſtomach is reduced to chyle, the heavieſt parts fall down firſt in form of ſediment, reſembling lees of wine, whilſt the lighteſt parts remain upon the top; but, the fermentation continuing, theſe alſo ſubſide.

The fleſh we eat bears the chief part in promoting fermentation, which, by becoming in ſome degree putrid, acts as a ſeptic upon the reſt of the aliment; for all putrid animal ſubſtances, are ferments to the farinacia.

Though the ſaliva, when well prepared and healthy, rather retards putrefaction; yet when it is putrid, too ſcanty, or not intimately mixed with the food, it makes great changes in the operation of digeſtion.

When

When it is putrid, it not only haſtens fermentation, but makes it ſtronger and more productive of air; the fleſh thereby becomes more than uſually putrid; and, after the action is over, remains uncommonly ſour to the taſte and ſmell: And if there is any other putrid matter in the ſtomach, as corrupted blood, or chyle, that has lain longer, than, by the laws of the animal œconomy, it ought, then the fermentation is ſtrong, the inteſtine motion conſiderable, and a great deal of air is produced; and the liquor, that remains, after the operation, is very acrid and auſtere. Hence we ſee, that when the ſaliva is in a putrid ſtate, as in hectic and ſcorbutic habits, vegetable diet is very proper.

In ſurfeits, or upon ſwallowing without due maſtication, when the meat is tough and fat, or of the farinaceous unfermented kind, or when the ſaliva is vitiated; then the fermentation becomes tumultuous, the ſtomach fills with air; and this extraordinary commotion, being attended with an unuſual heat, brings on that uneaſineſs called the *heart-burn*; but if you give ſalts, they will not only ſuddenly ſuſpend a high fermentation, till more of the ſaliva can be ſecreted, and mixed with the aliment; but will likewiſe render the ſaliva more ſaponacious; therefore they are the ſure, ſpeedy, and proper remedies to be given in thoſe caſes; alſo ſpirits, acrids, bitters, and hot anti-ſcorbutic plants are of ſervice.

Again, when the ſtomach is relaxed, or any ways diſabled from conveying the whole aliment into the inteſtines, then what is left, having time to undergo a compleat fermentation, is thereby changed into a harſh ſort of vinegar, which is ſometimes ſo ſharp, ſour and acrid, as to excoriate the throat, and ſet the teeth on edge: in this caſe the meat ſhould be kept till tender, before it is dreſſed; becauſe it digeſts eaſier, than when quite freſh; due maſtication very much aſſiſts digeſtion, therefore people, that have weak ſtomachs, ought to chew their meat well. Acids, bitters, wines, *&c.* as lemon juice, camomile flowers, wormwood, leſſer centaury, gentian, lime-water, green tea, alſo plenty of ſmall freſh beer with our food, excellently prevent the more violent fermentations, and occaſion the digeſtion to be eaſily and regularly carried on. Scorbutic, or putrid habits, require acids, wines, and other antiſeptics.

An acid abounding in the *primæ viæ* is corrected by abſorbents.

In coldneſs and debility of the ſtomach, the fibres muſt be braced and ſtimulated with wine, bitters, warm and acrid ſubſtances, as muſtard-ſeed, and garden ſcurvy-graſs.

As lime-water neither retards fermentation, like the lixivious ſalts, nor makes it ſo violent as the teſtacea; and being ſomewhat aſtringent, it is an excellent medicine for weak ſtomachs with a predominating acid, as many have experienced, who were ſubject to the gout, and other chronical diſorders, ſeemingly depending on that cauſe. Chewing rhubarb in the morning, and before dinner, is of wonderful ſervice in many complaints of the ſtomach, and has often effected a cure, after many other medicines have failed.

SIMPLICIA.

FOLIA, &c.

Absinthium Romanum. *Roman Wormwood.*

Has a bitter taſte; is an excellent ſtomachic, in loſs of appetite and indigeſtion; prevents putrefaction; good in dropſies; and is ſaid to carry off choler, and other diſorders of the liver by urine. The roots have a warm aromatic taſte, without any of its nauſeous bitterneſs. There is in the ſhops a conſerve made of the tops of ſea wormwood; it is a celebrated medicine in dropſies, where the diſorder proceeds from a viſcidity of the juices, or a lax and flaccid ſtate of the ſolids; for it tends to attenuate the former, and ſtrengthen the tone of the latter: the doſe is ℥ſs about an hour or two before meals. The *Edinburgh* College directs an extract to be made of dried wormwood; it is ſimply bitter, and proves a uſeful medicine given in doſes from ℈ſs to ʒi. There formerly was a ſyrup made from the juice of wormwood, and clarified with ſugar, but it is now juſtly neglected; which is the fate of the water that was diſtilled from it.

Carduus Benedictus. *Bleſſed Thiſtle.*

Has a penetrating bitter taſte; good in loſs of appetite from debauch. An infuſion of it in water proves a light, uſeful ſtomachic, but if ſuffered to remain too long in infuſion, it becomes very nauſeous and offenſive to the ſtomach, and often promotes vomiting. There was a ſimple water ordered by the college to be diſtilled from the leaves of carduus; but it is now rejected. Some looked upon this ſimple water as a ſudorific, and alexipharmic, without any juſt

juſt grounds for their opinion: what remains, after diſtillation, when duly depurated and inſpiſſated, proves a moderately ſtrong bitter; and is a medicine of ſome uſe.

CENTAURIUM MINUS. *Leſſer Centaury.* D. ℈ı to ʒı.

Is a very good bitter, and ſerviceable to the ſtomach; is a good aperient; diſcuſſes and deterges viſcid humours, apt to abound in the *primæ viæ*, and carries 'em off by ſtool and urine; kills worms; and is recommended as a ſudorific and emmenagogue; good in the jaundice, intermittent fevers, dropſies, ſcurvy, and ſciatica. It is uſed externally in diſcutient fomentations.

Extractum herb. centaurii minoris, *Extract of Leſſer Centaury.* This extract, made with water, is a uſeful ſimple bitter. D. ℈ſs to 4.

SANTONI CUM SEMEN. *Wormſeed.*

It is brought from the Levant; of a yellow colour, and hot bitter taſte; it kills worms; but is very diſagreeable in powder or infuſion.

GENTIANA. *Gentian.* D. ℈ı to ʒı.

The root is a ſtrong bitter, and is often made uſe of; has a grateful flavour, like orange-peel; and not very diſagreeable taſte; wonderfully warms the ſtomach, and excites appetite; promotes ſenſible and inſenſible perſpiration; kills worms; is joined ſometimes with the bark in the cure of agues.

Extractum Radicum Gentianæ, *Extract of Gentian Root*, is made with water, and proves an excellent ſimple bitter; the doſe is from ℈ſs to 4. There was formerly kept in the ſhops a water called *Aqua Gentianæ Compoſita*, *Compound Gentian Water*, diſtilled with French brandy from gentian root, and leſſer centaury: but whoever deſires to obtain the virtues of theſe ingredients muſt not expect to find them in a diſtilled water.

CORTICES.

AURANTIA MALUS, LIMO. *Orange, Lemon.*

They are both grateful, aromatic bitters; and in cold phlegmatic conſtitutions prove excellent ſtomachics and carminatives; promote appetite; warm the ſtomach; and ſtrengthen the tone of the viſcera. Orange-peel is conſiderably

warmer than lemon-peel. The juice is a grateful acid liquor; of great uſe in febrile and inflammatory caſes, for allaying heat, abating the exorbitant motion of the blood, and for quenching thirſt; it promotes the ſalutary excretions; and, in ſome kinds of ſcurvies, eſpecially when exhibited in conjunction with *cochlearea*, *naſturtium*, or other acrid anti-ſcorbutics, as *Succi ſcorbutici*, is of eminent ſervice. Orange flowers are ſometimes of great ſervice as a cordial, when the ſpirits are almoſt quite extinct in malignant and putrid fevers. All the vegetable acids dilute the blood, even when inſpiſſated, or thickened with heat: hence in ſome fevers, where water runs off by the kidnies, almoſt as pale and inſipid, as it was when drunk, vegetable acids ſoon render it of a due colour and quality. The mineral acids, nitre excepted, combined with vinous ſpirits, have the ſame effect. As acids are good in bilious and inflammatory caſes, ſo are they very hurtful in cold, pale, phlegmatic habits, where the veſſels are lax, the circulation languid, the bile deficient, and the power of digeſtion weak; in thoſe caſes an acid is often generated in the ſtomach, from milk and moſt vegetable food, which, whilſt it continues in the firſt paſſages, occaſions an uneaſineſs about the ſtomach, flatulencies, ſometimes griping pains in the bowels, vomiting, or *cholera morbus*. Vegetable acids, particularly the native juices of certain plants and fruits, have a ſaponacious quality, by means of which, they attenuate and diſſolve viſcid phlegm, deterge the veſſels, and are ſerviceable in ſundry chronical diſorders. Though all the vegetable acids thin the blood, yet the mineral, nitre excepted, inſtantly coagulate it.

Conſerva Flavidinis Corticum Aurantiorum, *Conſerve of yellow Rind of Seville orange-peel*, is a very elegant medicine, containing all the virtues of the peel, in a form ſufficiently agreeable, with regard to the doſe, and conveniency of taking: it is a pleaſant, warm, ſtomachic bitter, and frequently uſed.

Cortex Aurantiorum Conditus, *Candied Orange-peel*; and *Cortex Limonum Conditus*, *Candied Lemon-peel*, are little uſed; their virtues are nearly the ſame with that of lemons and oranges; the college does not expect an apothecary to make them.

Acetum. *Vinegar.*

Is an acid produced from fermented vinous liquors, by a ſecond fermentation: the vinegar made of wine is the beſt, and the ſtronger the wine is, the better the vinegar: conſidered as a medicine, it is excellent in all kinds of inflammatory and putrid diſorders, externally, or internally uſed; good in ardent bilious

bilious fevers, and in other malignant diſorders; in weakneſs, faintings, vomitings; is alſo uſed in ſcurvies, as an alterative; good in ſlow malignant fevers, when from a rancid diet, or from a ſuppreſſion of the glandular ſecretions, the blood is colliquated from the exaltation of the oils, and retention of the ſalts. It checks the motion of the blood, cools the habit, thins the juices, and thereby becomes a certain ſudorific. Vinegar is ſometimes employed in hæmorrhages as a coagulating ſtiptic: the doſe may be from an ounce to three; a continuance of it in large doſes ought to be avoided; as it may occaſion coagulations of the chyle in the lacteal veſſels, and chyleferous ducts; and thereby produce an incurable aſtrophy.

Acetum Diſtillatum vel Spiritus Aceti, *diſtilled Vinegar*, differs in nothing from common vinegar; but in being a little purer.

Syrupus acetoſus, *ſyrup of vinegar*, is made of ſugar ℔ 3, diſſolved in ℔ 2 of white wine vinegar.

Stannum. *Tin.*

Eaſily melts in the fire, and calcines into a duſky powder; which, by further continuance, becomes white. It was formerly accounted good in diſorders of the uterus and lungs; but it is, at preſent, chiefly regarded as an anthelmintic. Marine acids, and *aqua regis*, are proper menſtrua for it. Tin contains a good deal of arſenic; which ought to deter people from the too free uſe of it.

PRÆPARATA.

L. E. Stannum Pulveratum. *Powdered Tin.* D. ℈1 to ʒſs.

Tin is reduced to powder by melting, and pouring it into a wooden box, chalked within, and then ſhaking it. The calx is obtained by melting it in an unglazed earthen veſſel, and continually ſtirring it till reduced to a calx. Theſe two preparations pretty nearly agree; they have been uſed for ſome time as a remedy againſt worms, particularly the flat kind; which too often elude the force of other medicines. It may be given made up in a bolus with conſerve of Roman wormwood. As the joint-worm often evades the force of mercurials, tin therefore may afterwards be tried; it is ſaid that its ſucceſs chiefly depends upon its being given in large doſes, as ʒ1 at a time, on an empty ſtomach, mixed with ʒ4 of melaſſes, the next day ʒſs, and the day following ʒſs more is to be given;

given; after which a cathartic is adminiſtered, which commonly brings off the worms; but the pains of the ſtomach, occaſioned by them, are commonly taken off by the firſt or ſecond doſe. So free a uſe of tin however ſhould only be tried when other medicines fail. There is a vermifuge powder made of powder of tin, coralline and worm-ſeed āā ʒi, ſavin ſaffron āā ʒi, mixed together. This powder is ſaid to be an infallible remedy againſt worms; it does not purge, and therefore may be taken in almoſt any circumſtance, without prejudice, from gr.i to ℈i every night going to bed, in any convenient vehicle.

E. Sal Jovis. *Salt of Tin.* D. gr.2 to 8.

Tin is digeſted with *aqua regia*, diluted with eight times its quantity of water, ſo as to cover the calx to the height of ſome inches, till a ſolution is made; which is filtrated, evaporated to a pellicle, and ſet to chryſtalize. It is chiefly recommended as a coſmetic in pōmatums; and ſometimes it is given internally in nervous caſes; eſpecially in epilepſies and convulſions. *Quincy* accounts it the moſt efficacious anti-epileptic to young children, to whom, he ſays, it often gives a puke, which is nothing the worſe; it is beſt given in a bolus.

E. Amalgama Jovis. *Amalgam of Tin.*

Is melted tin, with an equal quantity of hot quick-ſilver poured upon it, and continually ſtirred till cold. This is only preparatory to the following.

L. Aurum Muſivum. D. gr.4 to ℈i.

When the Edinburgh College retained this preparation, they made it by ſubliming the amalgam of tin, with the ſame quantity of ſal ammoniac, and flowers of ſulphur together.

The London College, in preparing their aurum muſivum, joins theſe two proceſſes in one. This preparation is chiefly valued, and receives its name from its beautiful, ſparkling, and gold-like hue; as a medicine, it is little regarded; though formerly held in eſteem in hyſteric and hypochondriacal complaints, in malignant fevers, venereal diſorders, and in killing worms: it appears to be only tin reduced to an impalpable powder, and coloured by the ſulphur; of which it retains but a very ſmall quantity. The Edinburgh College has laid aſide this preparation of tin, as uſeleſs; and, in the laſt Review of their Pharmacopœia, have

have put out another preparation of this metal, called *antihecticum Poterii*, *Poterius's antihectic*; which is made of the martial regulus of antimony, with half its quantity of beſt tin, melted together, and powdered; to which is added, thrice its weight of pure nitre: the mixture is then deflagrated and calcined for an hour, and afterwards ground into an impalpable powder; which is waſhed with warm water, and then dried for uſe. Phyſicians greatly differ in their accounts of this medicine; ſome extol it as a diaphoretic; others praiſe it in hectic caſes; while many condemn it as unſafe. It is compoſed of the calx of tin, and of the calx of antimony; and, till their virtues are better aſcertained, common practice has judiciouſly laid aſide the uſe of it.

Arcanum Joviale, is an amalgam of equal quantities of quick-ſilver and tin, digeſted with ſpirit of nitre, and drawn off by a retort; the remainder is wetted with rectified ſpirit of wine; which is burnt away, and a freſh quantity added, until the pungent taſte is worn off. This differs only from the former, in being a little rougher in its operation: they may be given from gr. 3 to ℈1. In the former pharmacopœia of the Edinburgh College, there was a preparation called *bezoardicum joviale*, *bezoar of tin*; which is alſo expunged: it was made of regulus of antimony ℥3, pure tin ℥2, corroſive ſublimate mercury ℥5. The regulus of antimony, being melted, has the tin added to it; to which, after levigation, the corroſive ſublimate is added, and the mixture digeſted: the butter that ariſes is fired by three repeated diſtillations, with thrice its own weight of ſpirit of nitre, the powder is then calcined, and thrown while ignited into a proper quantity of ſpirit of wine; and then dried for uſe. This differs little from the foregoing preparations.

OLEA.

L. E. Oleum ex Foliis Absinthii Essentiale. *Eſſential Oil of Leaves of Wormwood.*

Is one of the moſt ungrateful oils, ſmells ſtrong of the wormwood, and contains the whole of its nauſeous taſte; but little or nothing of its bitterneſs. Its colour, when drawn from the freſh herb, is a dark-green; and, when drawn from the dried, is a browniſh yellow. It falls greatly ſhort of the virtues of the plant. ℥1 of it diſſolved in ℥1 of rectified ſpirit of wine, and gut. 7 or 8 of the mixture taken for a doſe in any convenient vehicle, is ſaid to be a mild anodyne in ſpaſmodic

modic contractions; and a medicated liquor compoſed of gr.7 of the oil firſt ground with 3i of ſugar, then with 3ii of ſalt of wormwood; and the whole diſſolved in ℥vi of the diſtilled water of the ſame plant. It is recommended in tertian fevers, two hours before the fit is expected; the patient is to bathe his feet in warm water, and then to drink every quarter of an hour ℥ii of the liquor till the two hours are expired: but this remedy is not to be uſed, if there is any ſchirroſity or ſuppuration. The preſent practice makes uſe of it chiefly as a vermifuge, both internally, and externally applied to the belly; it is moſt conveniently exhibited in the form of pills, with crumbs of bread.

E. Oleum Cort. Limonum Essentiale. *Eſſential Oil of Lemon-Peel.*
D. gut. 2 to 8.

Is a pleaſant oil; has nearly as agreeable a ſmell as that of the freſh peel; is one of the lighteſt eſſential oils; perfectly limpid, and almoſt colourleſs; is a good cordial in weakneſs of the ſtomach, *&c.* it gives a fine flavour to the *ſal volatile*; and renders the ſoap pills very agreeable to the ſtomach; it is more frequently however uſed as a perfume, than as a medicine. There is an eſſential oil likewiſe diſtilled from the outer yellow rind, or peel of oranges; and is chiefly uſed as the former to ſcent the pomatums and unguents. Some reckon it carminative and cephalic; but they have little reaſon for their opinion.

AQUÆ, TINCTURÆ, &c.

L. Aqua Corticum Aurantiorum Simplex. *Simple Orange Peel Water.*

Is diſtilled from the yellow peel of Seville oranges dried; proves very weak of the orange-peel; is uſed as a diluter in fevers, and in other diſtempers where the ſtomach and palate are ſubject to receive quick diſguſt.

L. Aqua Aurantiorum Spirituosa. *Spirituous Orange-Peel Water.*

This water differs from the former in having proof ſpirit in place of common water; is ſtronger of the orange-peel than the ſimple water; and is a good cordial, ſtomachic, and carminative.

Infusum

L. E. Infusum Amarum Simplex. *Simple bitter Infusion.*

Is made of Gentian root, freſh, yellow rind of lemon-peel āā ℥ſs, yellow rind of Seville orange-peel ʒiſs, macerated for an hour or two in twelve ounces of boiling water, and then ſtrained through paper for uſe. The Edinburgh College directs this infuſion to be made of Gentian root ʒ2, tops of leſſer centaury ℥ſs, infuſed in a pint of boiling water for four hours, and then filtrated for uſe. Both theſe are very elegant and uſeful bitters; the firſt, in particular, is as agreeable as can be contrived. The peels communicate a fine flavour; the only addition that the Gentian ſtands in need of.

L. Vinum Amarum. *Bitter Wine.* D. ℥i to ℈.

Is made of gentian root, yellow rind of lemon-peel freſh āā ℥i, long pepper ʒ2, macerated without heat in ℔2 of white wine, and ſtrained off for uſe. This is a very elegant grateful bitter, conſiderably warmer than the watery infuſion.

L. Tinctura Stomachica. *Stomachic Tincture.*
E. Tinctura ad Stomachicos. *Stomachic Tincture.*

Is made of raiſins ſtoned ℥4, cinnamon ℥ſs, carui and cardamom ſeeds, cochineal āā ʒ2, digeſted without heat in ℔2m of proof ſpirit. The Edinburgh college prepares this tincture of calamus aromaticus, Gentian āā ℥iſs, Peruvian bark powdered ℥2, orange-peel, carduus benedictus ſeeds, tops of leſſer centaury, āā ℥i filings of ſteel tied up in a bag ℥3, digeſted for three days in one gallon of white wine, and then filtrated. This is a very efficacious medicine, and is what is ſold under the name of *uſquebaugh*: it proves an elegant and grateful bitter; of great ſervice in weakneſs of the ſtomach and chylopoietic organs; and in a lax flaccid ſtate of the viſcera in general. It may be taken without any vehicle.

L. Tinctura Amara. *Bitter Tincture.* D. ℥ſs to 1.

Is made of gentian root ℥2, yellow rind of Seville orange-peel dried ℥i, leſſer cardamom ſeeds free'd from the huſks ℥ſs, digeſted without heat in ℔2 proof ſpirit, and then ſtrained off. This is a very elegant ſpirituous bitter.

E. Elixir Stomachicum. *Stomachic Elixir.* D. gut. 15 to 60.

Is made of gentian root ℥2, freſh orange-peel ℥1, Virginian ſnake root ℥ſs, cochineal ʒſs, ſteeped for three days in ℔2 of French brandy, and then filtrated for uſe. This differs from *tinctura ſtomachica amara, bitter ſtomachic tincture*, in having French brandy in place of the rectified ſpirit of the other; the cochineal is digeſted to give it a fine colour. They are both perhaps the beſt ſtomach tinctures that can be made; and may be conveniently added to ſteel wine; they wonderfully warm and ſtrengthen the ſtomach; but anſwer the end much better when joined with a little acid; which, at the ſame time, improves both their colour and taſte; they may be given in wine, or any other convenient vehicle.

L. Tinctura Rhabarbari Spirituosa. *Spirituous Tincture of Rhubarb.*

This tincture is made of rhubarb ℥2, leſſer cardamom ſeeds huſked ℥ſs, ſaffron ʒ2, digeſted without heat in ℔2 of proof ſpirit; and then ſtrained for uſe.

L. Tinctura Rhabarbari Vinosa. *Vinous Tincture of Rhubarb.*

The only difference between this tincture and the preceeding is, that this has white wine in place of the proof ſpirit, which is the menſtruum for the other; they are elegant, uſeful, and agreeable ſtomachic bitters.

E. Tinctura Rhei Amara. *Bitter Tincture of Rhubarb.*

Is made of rhubarb ℥1, gentian root ʒ1ſs, Virginian ſnake root ʒ1, cochineal ℈1, digeſted for three days in ℔1 of French brandy; and then filtrated for uſe. This tincture may be made with mountain wine.

E. Tinctura Rhei dulcis. *Sweet Tincture of Rhubarb.*

This tincture is made of Rhubarb ℥2, leſſer cardamom ſeeds ℥ſs, digeſted for three days in ℔2 of French brandy, and to the ſtrained liquor ℥4 of white ſugar candy are added; and again digeſted till the ſugar is diſſolved. Theſe tinctures are deſigned rather as ſtomachics and corroborants, than as purgatives. They are good in weakneſs of the ſtomach, indigeſtion, laxity of the inteſtines, diarrhœas, cholicy, and other complaints. They are alſo ſucceſsfully joined with the bark in the cure of intermittents, particularly in cachectic habits, where the viſcera are unſound.

L. Tinc-

L. TINCTURA AROMATICA. *Aromatic Tincture.*

E. TINCTURA AROMATICA, *vulgo* SALUTIFERA. *Aromatic Tincture, commonly called Tincture of Health.*

This tincture is made of cinnamon 36, leſſer cardamom ſeeds 33, long pepper, ginger āā ℥2, digeſted without heat in ℔ 2 of proof ſpirit, and then filtrated. The Edinburgh College directs their tincture to be made of calamus aromaticus, cinnamon āā ℥ſs, leſſer cardamon ſeeds, angelica āā 33, long pepper 31, macerated for three days in ℔ 2 of French brandy, and then filtrated. Both theſe tinctures are agreeable, very warm, cordial, ſtomachic bitters.

L. ELIXIR VITRIOLI ACIDUM. *Acid Elixir of Vitriol.* D. gut. 10 to 40.

Is made of aromatic tincture ℔ 1, ſtrong ſpirit of vitriol ℥4, mixed together; and, when the fœces have ſubſided, filtrated for uſe. This preparation was originally taken from *Mynſicht*, by whoſe name it is often diſtinguiſhed: the author directed it to be prepared in a ſomewhat different manner; thus, of cinnamon, ginger, cloves āā 33, calamus aromaticus ℥1, galangal ℥1ſs, ſage, mint āā ℥1ſs, cubebs, nutmegs āā 32, aloes wood, citron peel āā 31, all reduced to powder; to which are added, of ſugar candy ℥3, digeſted for twenty days with ℔ 1ſs of ſpirit of wine, and ℔ 1 of oil of vitriol; and then filtrated for uſe. Theſe elixirs are generally recommended in weakneſs of the ſtomach, and in moſt caſes of this kind, where an acid does not already prevail they have generally good effects. Sometimes they have proved ſerviceable after bitters had availed nothing; eſpecially in great relaxations from debauches, and over feeding. They imitate the virtues of the bark, and may be properly given in all intentions, where that is found to ſucced; ſo that by its help, intermittents, and many other diſorders, from too lax a ſtate of the ſolids, may be removed with a much leſs quantity of the bark than might otherwiſe be required. They are good in many diſorders of the head; preſerve againſt epilepſies, apoplexies, palſies, and rheumatic defluxions; cure decays of conſtitution, and continual reachings to vomit: they may be taken in any convenient vehicle, once, twice, or thrice a day, when the ſtomach is moſt empty.

L. ELIXIR VITRIOLI DULCE. *Sweet Elixir of Vitriol.*

Is made of aromatic tincture ℔ 1, dulcified ſpirit of vitriol ℥8 p. mixed together. This elixir is deſigned for perſons, whoſe ſtomachs are too weak to

bear the foregoing acid elixir; to the taſte it is a grateful aromatic, without any perceptible acidity,; it occaſions little or no precipitation upon adding it to the tincture.

E. Elixir Vitrioli. *Elixir of Vitriol.*

Is made of rectified ſpirit of wine ℔ 2, and ℥ 6 oil of vitriol, gradually dropt into it, digeſted in a very gentle heat B. A. for three days; then there are added, of cinnamon ℥ ıſs, ginger ℥ ı, dried leaves of pepper mint ℥ſs, digeſted a ſecond time for three days in the ſame heat; and then filtrated. This is a very elegant and grateful ſtomachic, ſimilar to the foregoing ſweet elixir: it often produces happy effects.

SYRUPI, &c.

L. E. Syrupus e Corticibus Aurantiorum. *Syrup of Orange-Peel.*

This ſyrup is made of the yellow rind of Seville orange-peel freſh ℥ 8, macerated for a night in a cloſe veſſel with ℔ 5 of boiling water, and to the ſtrained liquor a proper quantity of ſugar is added to make it a ſyrup. This proves a very elegant and agreeable ſyrup, and poſſeſſes a great ſhare of the fine flavour of the orange-peel.

L. E. Syrupus e Succo Limonum. *Syrup of Lemon Juice.*

This ſyrup is made of the ſtrained juice of lemons ℔ 2 m. and ℥ 50 of ſugar diſſolved in it. The Edinburgh college directs this ſyrup to be made of lemon juice ℔ 2 with ℔ 4 of white ſugar diſſolved in it. After the ſame manner ſyrups are made of the juice of oranges, mulberries, raſpberries, &c. They are all very pleaſant cooling ſyrups, and are occaſionally made uſe of in draughts and juleps for quenching thirſt, abating heat, &c. in bilious inflammatory caſes; and are ſometimes uſed for gargariſms in inflammations of the mouth and tonſils. After the ſame manner may be made a ſyrup of barberries, which is accounted a cooling reſtringent, and makes a good gargariſm, though now it is as ſeldom kept as preſcribed.

E. Pilulæ Stomachicæ. *Stomach Pills.* D. gr. 10 to ℈ iſs.

A e made of rhubarb ℥ ı, ſocotorine aloes ʒ 6, myrrh ℥ſs, vitriolated tartar ʒ ı, eſſential oil of mint ʒ ſs, made up with ſyrup of orange-peel. Theſe pills moderately

moderately warm and ſtrengthen the ſtomach, and evacuate crudities and viſcid humours. They may be taken as alterants from gr. 10 to ℈1.

FORMULÆ EXTEMPORANEÆ.

℞ Cort. peruvian. craſſ. pulv. ℥1, aq. fontan. ℔3, coque leni igne per tres horas; tunc ſenſim augeatur ignis, & coque fortiter per tres vel quatuor horas, ut liquoris colati menſura ℔1, dein adde ſpir. vinoſ. tenuior ℥2.

℞ Rad. gentian. cort. aurantior. āā ℥12, aq. fontan. bullient. cong. 10, adde ſpt. vin. tenuior. ℔8.

℞ Cort. peruvian. opt. pulv. ℥12, flaved. cort. aurant. ℥iſs, rad. ſerpent. virgin. 33, croc. angelic. ℈4, coccinel. ℈2, ſp. vin. gallici ℥20, f. infuſio clauſa per dies aliquot (tres ſaltim quatuorve) deinde coletur. doſ. ℥1 ad ℥ſs, 4ta, 6ta vel 8va, quaque hora cum elix. vitriol. gut. 10 ad 20.

℞ Cent. min. ſummit. manip. 1, cort. aurant. 32, vin. alb. ℔2, infunde per 24 horas & cola, doſis ℥1.

℞ Gentian. rad. 3ſs, aq. menth. pip. ℥2, ſyr. e cort. aurant. 31, f. hauſtus.

℞ Aq. ſem. cardamom. ℥6, ſpt. vitriol. ten. 31, doſ. ℥1.

℞ Elix. vitriol. dulc. 32, tinct. aromatic. ℥ſs f. tinctura doſ. cochl. min. ex vin. cyatho ſumend.

℞ Infuſ. amar. ſimpl. ℥3, vin. chalybeat. ℥2, doſ. cochl. 3.

℞ Tinct. amar. ℥ſs, aq. cinnam. ſimpl. ℥2, f. hauſtus.

℞ Spt. vitriol. ten. gut. 20, in aq. cyatho, vel in vin. amar. ℥2; ter quaterve in die.

℞ Vin. amar. ℥8, tinct. aromat. ℥ſs doſis ℥1.

℞ Tinct. mart. in ſpt. ſalis.

℞ Rad. ſerpentar. virgin. gentian. āā 33, galang. min. caryoph. cubeb. macis nuc. moſch. croci āā 31, coccinel. ℈iſs, vin. alb. ℔3, infund. per 14 dies cola.

℞ Rad. gentian. 34, galang. calam. aromatic. angel. rad. ab Hiſpan. āā 32, ſummit. centaur. min. ℥1, cort. aurant. cum ſucc. N° 3 croci 31, canar. ℔4, infunde per 14 dies deinde cola.

℞ Sum.

℞ Sum. centaur. min. — abſinth. āā manip. 4, rad. gentian ℥2, cort. aurant. N° 6, pulv. rad. angel. cort. winter. āā ℥1, aq. fontan. cong. 6, infunde.

℞ Sum. centaur. min. manip. 12, rad. gentian. ℔1, bacc. junip. ℔iſs, aurant. limon. cort. & ſucc. āā N° 4 vin. canar. cong. 4 infund. per 14 vel 20 dies, & cola.

℞ Rad. calam. aromatic. gentian. āā 32, centaur. min. abſinth. flor. chamæmel. āā 32, aq. font. ℔3, coq. ad ℔2, cui adde ſem. carui contuſ. 34, deinde cola.

℞ Rad. gentian. 32, calam. aromatic. rad. angel. ab Hiſpan. āā 31, ſummit. centaur. — abſinth. āā manip. 2, ſem. coriand. ℈iſs, aq. commun. ℔1, colaturæ adde aq. cort. aurant. ſpt. ℥4.

℞ Rad. gentian. 32, aurant. cort. cum ſuc. N° 2, cort. winter. rad. angel. ab Hiſpan. āā 31, croci ℈iſs, ſummit. centaur. — abſinth. āā manip. demid. raſur. chalyb. ℥1, vin. alb. ℔1, infunde frigide per 8 dies, deinde cola; cui adde aq. cinnam. ſpt. ℥10, doſ. cochl. 1.

℞ Fol. cardui. benedict. ℥1, aq. commun. ℥12, aq. cort. aurant. ſpt. ℥4, infund. frigide per ſex horas, & cola.

℞ Lign. guaiac. ſantal. citrin. āā ℥2, cort. aurant. ſem. cardam. min. āā ℥1, vin. Hiſpan. cong. 1 infunde per ſeptimanam doſ. ℥2, bis vel ter in die.

℞ Lign. guaiac. rad. hellebor. nig. āā ℥2, ſem. cardam. min. cort. aurant. āā ℥1, vin. alb. ℔4, macer. per ſeptimanam deinde cola.

℞ Cochlear. hort. fol. manip. 1 rad. raphan. ruſtic. 34, cort. winter. 32, vin. Hiſpan. ℔2, macer. frigide per tres dies; doſ. ℥2, bis vel ter in die.

℞ Rad. hydralapath. ℥6, rad. gentian. glycyrrhiz. pip. nig. macis āā ℥3, croc. ℥2, vin. alb. ℔16, acet. ℔1, vitel. ov. 3. macer. in vaſ. bene clauſ. per dies 3 & cola; D. ℥3, ad 6 mane.

℞ Pulv. cort. peruv. ℥2, vin alb. ℔2, macer. calide per horas 48 deinde cola.

℞ Aq. menth. vulg. ſimpl.—cinnam. ſimpl. āā ℥4, ſpt. ſuccin. ℥ſs, ſyr. cydon. ℥2, m.

℞ Aq. hordeat. ℥6, ſpt. lavend. comp. ℥3, ſyr. e cort. aurant. ℥1 m.

℞ Aq. cort. aurant. ſimpl. — hordeat. āā ℥4, ſpt. ror. marin. ℥2, ſacchar. 36 m.

℞ Aq.

℞ Aq. menth. piper ſimpl. ℥6, — ſpt. ℥2, ſyr. croc. 3ß m.

℞ Tinct. ſtomach. ℥6, aq. ſem. cardamom. ℥2, ſyr. ſimpl. 3ß m.

℞ Aq. cinnam. ſimpl. ℥6 — nuc. moſch. tinct. ſtomach. āā ℥1, ſyr. e cort. aurant. ℥ſs, doſ. cochl. 5 vel 6.

℞ Rad. conſolid. maj. — eryng. āā 3ß, conſerv. roſar. rub. ℥2, ſpt. vitriol. dul. gut. 40, aq. commun. ℔3 coq. ad ℔2, D. ℥3 ter in die.

℞ Pulv. cort. peruvian. ℥2, aq. fontan. ℔3, coque ad ℔2, colaturæ adde elix. vitriol. dul. ℥3.

℞ Chamæmel. flor. pulv. ℈1, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Zingib. gr. 10, conſerv. flav. cort. aurant. ℈1, f. bolus.

℞ Extr. gentian. 31; ol. cinnam. gut. 6, f. pil. N° 12, doſ. 4.

℞ Terr. limat. extract. gentian. āā 31, f. pil. med. doſ. 4.

℞ Sal. mart. extract. cort. peruvian. āā p. æ. f. pil. D. gr. 5.

℞ Cort. peruvian. ℥1, ext. glycyrrhiz ℥ſs, ſyr. e cort. aurant. q. ſ. f. elect.

℞ Chamæmel. flor. pulv. gr. 10, aq. menth. pip. ſimpl. ℥1, ſyr. ſcillitic. 31, f. hauſtus pro infante.

℞ Rhabarb. pulv. gr. 15, mercur. dul. ſubl. gr. 1, ſyr. e cort. aureant. ℥ſs, aq. menth. vulg. ſimpl. ℥1, f. hauſt. pro infante.

℞ Vin. rub. gall. vel Luſitan. ℔2, rhabarb. ℥2, degere per biduum & cola; doſ. ℥1, pro infante.

℞ Mercur. dul. ſubl. ℈ſs, rhubarb. pulv. 3ß, f. pulv. doſ. gr. 10, pro infante.

℞ Stan. pulv. ℥1, conſerv. abſinth. ℥iſs, ſyr. e cort. aurant. q. ſ. f. elect. D. 31, pro infante.

℞ C. C. C. rhabarb. ſantonic. ſem. āā p. æ. m. pulv. D. gr. 10 ad 3ſs, per aliquot dies pro infante.

℞ Santonic. ℥1, mercur. dul. ſubl. 31, jalap. 3ſs, ſem. aniſ. 31 ſacch. ℥1, m. ut f. pulv. doſ. gr. 10 to 3ſs, pro infante.

℞ Pil. aromatic. gum. guaiac. ſal. mart. —— abſinth. gentian. āā 31, gum. ammon. in acet. ſolut. q. ſ. f. pil. medioc. doſ. N° 4 vel 5 omni nocte.

℞ Gum.

℞ gum. ammon. ℈1, myrrh. maſtich. croci caſtor. āā ℈1, ſal. martis ℈ſſ, benzoin. ℈ſſ, croci ſal abſinth. āā ℈1, ſyr. roſar. ſolutiv. q. ſ. ut f. pil. med. doſ. N° 5 omni nocte.

℞ Aloes hellebor. nig. ſal. mart. galban. myrrh. āā ʒ1, ſyr. ſimpl. q. ſ. f. pil. medioc. doſ. N° 3.

℞ Pulv. ſtan. ℈1, Æthiop. mineral. gr. 10, ſacchar. puriſſ. gr. 6 m.

℞ Conſ. flor. ror. marin. — ſummit. abſinth. maritim. — fol. cochlear. hort. āā ʒ6, ſpec. aromatic. pul. cort. winter. āā ʒ1, ſal. ſuccin. ℈1, chalyb. cum ſulph. præp. ʒ3, ſyr. e cort. aurant. q. ſ. f. elect.

℞ Conſerv. flor. ror. marin. ℥ʒ1 — ſummit. abſinth. marit. ℥ʒſſ, elect. e bacc. lauri ʒ2, pulv. hellebor. nig. pulv. pyreth. āā ʒ2, ſal. ſuccin. ʒ1, croci ℈2, gum. ammon. in tinct. caſt. q. ſ. ſolut. ʒ2, ſyr. roſar. ſolut. q. ſ. f. elect.

℞ Conſ. roſ. rub. ℥ʒ4, terr. japon. ℥ʒ1, alum. elix. vitriol. āā ʒ2, ſyr. cydonir. q. ſ. f. elect.

℞ Conſ. ſummit. abſinth. marit. nuc. moſch. āā ʒ1, zingib. ʒ4, chalyb. cum ſulph. præp. ʒ2, ol. cinnamom. gut. 20, ſyr. e ſpin. cervin. q. ſ. f. elect.

℞ Rad. raphan. ruſtic. ſem. ſinap. contuſ. āā ℥ʒ2, flaved. cort. aurant. ℥ʒ1, cort. winter. ℥ʒſſ, infunde leni calore in aq. font. ℔b2, adde ſpt. vin. ten. ℥ʒ4.

℞ Conſerv. ſummit. abſinth. marit. ℔b1, cort. winteran. ℔bſſ, ſyr. zingib. q. ſ. f. elect.

℞ Cort. winteran. — aurantior. calam. aromat. āā ℥ʒ4, caryophyl. aromat. pip. Jamaicenſ. āā ℥ʒ2, ſpt. vinoſ. tenuior. cong. 2ſſ. Degere ſine calore per quatriduum; dein cola, & ſenſim adde ſpir. vitriol. fort. pondere ℔b5.

SECTION

SECTION V.

Of BALSAMICS.

UNDER balſamics ſeem to be comprehended all that is meant by ſoftening, reſtoring, healing, and cleanſing; to anſwer all theſe intentions it is neceſſary, that the bodies be ſoft, yielding, and adheſive; and, by their ſmallneſs, have a ready diſpoſition to motion. 'Tis eaſy to ſee how many valuable purpoſes they are able to anſwer in phyſic; but as the ſeat of the complaint is commonly in the viſcera; ſo any one that knows the animal œconomy, muſt be ſatisfied that they have a vaſt progreſs, in many inſtances, before they arrive at the intended ſcene of action; therefore nothing can be depended upon in a ſingle or few doſes; but muſt be followed and repeated till the animal juices are ſufficiently charged therewith, to afford a continual ſupply to any particular part, or to the whole. We ſhall the better underſtand the operations of medicines from the proper explanations under the ſeveral branches we have divided them into, *viz. Emollients*, *Reſtoratives*, *Vulnerary*, and *Detergents*, or *Alteratives*.

CHAP. I.

Of EMOLLIENTS.

EMOLLIENTS are ſuch things as ſoften the acrimony of the humours, when they have obtained an aſperity, ſo as to vellicate and render uneaſy the fibres and nervous parts; they, by their ſmoothneſs and ſoftneſs, wrap up their points till, by the circulation, they are brought to ſome common emunctory to be diſcharged; they likewiſe lubricate, relax, and moiſten the too tenſe fibres; and thereby remove ſpaſms and obſtructions.

SIMPLICIA.

FOLIA.

ALTHÆA. *Marſhmallows.*

Have a mucilaginous taſte; and readily yield a ſoft glutenous ſubſtance to water: the roots are ſtrongeſt and beſt; are emollient and diuretic; good in a thin acrimonious ſtate of the juices; and where the natual mucus of the inteſtines is abraded; alſo in ſharp defluxions upon the lungs, hoarſeneſs, dyſenteries, nephritics, and calcalous complaints, ſtranguries, heat of urine, and in a gonorrhæa; it wonderfully heals and guards the injured parts from thoſe corroſive ſalts, which would otherwiſe erode and ulcerate them; chewed in the mouth it often gives eaſe, in difficult dentification of children; externally uſed, it ſoftens and maturates hard tumours: it is often uſed in emollient clyſters. The *malvæ*, *mallows*, are uſed in the ſame intentions, but are not ſo ſtrong. The ſhops, however, keep a conſerve prepared from the flowers of mallows, which is looked upon as an emollient; and is ſometimes made uſe of as ſuch, in diſorders of the breaſt and urinary paſſages; and may be given in any quantity that the ſtomach will bear.

MERCURIALIS. *Mercury.*

Is relaxing, ſoftening, and detergent; good in the jaundice, and obſtructions of the viſcera; ſerviceable in coſtiveneſs and gripes in children, and is uſed in emollient clyſters, cataplaſms, and fomentations.

PARIETARIA. *Pellitory of the Wall.*

Has an herbaceous ſubſaline taſte; abounds with nitrous ſalts; deterges the urinary paſſages; and is a uſeful emollient herb.

SEMINA.

FÆNUM GRÆCUM. *Fenugreek.*

Fenugreek is chiefly cultivated abroad: the ſeeds have a ſtrong diſagreeable ſmell, and mucilaginous taſte; and are chiefly uſed in cataplaſms, fomentations, and clyſters.

LINUM.

Linum. *Linſeed.*

Is cooling, ſoftening, and healing; yields to the preſs a conſiderable quantity of oil; and, boiled in water, make a fine ſoft mucilage; which obtunds acrimony, defluxions of rheum, and catarrhs; tickling coughs; good alſo in pleuriſies, aſthmas, cholics, obſtructions of the urinary paſſages, and internal ulcerations and diſeaſes of the lungs embraced; uſed externally in emollient and maturating cataplaſms, and clyſters.

Amygdalus Dulcis *Sweet Almond.*

Have a ſoft, ſweet, grateful taſte; and is cooling, ſoftening, and nutrimental; obtunds acrimony in the *primæ viæ*; yields a large quantity of oil by expreſſion, which obtunds acrimony, ſoftens and relaxes the ſolids; is good in tickling coughs, heat of urine, pains and inflammations, cholics, and all irritations of the bowels, bloody urine, coſtiveneſs in children; and is particularly good in tentions and rigidity of particular parts. The ſolutions of almonds in water, called emulſions, contain the oil and virtues of the almonds; and may be given in acute and inflammatory diſeaſes, when the oil could not be ventured upon; becauſe a little heat ſoon turns rancid and acrimonious, which the emulſions are not liable to. Several unctuous and reſinous ſubſtances of themſelves not miſcible in water, as camphor, and the reſinous purgatives, may be triturated with almonds, and eaſily mixed with it in the form of an emulſion; and are thus excellently fitted for exhibition. The oil is often uſed to ſoften, deterge, and free the ears of wax, which often is the cauſe of deafneſs.

Mel. *Honey.*

Is a vegetable juice; the moſt eſſential ſubſtance or eſſence of many flowers; conſidered as a medicine, it is a very uſeful, aperient, and detergent; powerfully diſſolves viſcid juices, and promotes the expectoration of tough phlegm. Honey, in ſome conſtitutions, proves griping and purgative; but theſe effects are, in a great meaſure, prevented by previouſly boiling it. In thin hot habits honey does not agree; it is of good ſervice to thoſe who are troubled with tough phlegm in the morning, and ſhould be given over-night upon a toaſt, or diſſolved in any convenient liquor. You may make a tincture of honey thus; take ℔ 1 of clarified honey, of pure ſalt of tartar finely pulverized ℥ 3, take off

the ſcum, and, to the mixture, add of tartarized ſpirit of wine ℔ iſs; ſet the mixture in the heat of digeſtion for ſome time, then decant it from its fœces, and draw off one-half of the ſpirit of wine; what remains will be a ſweet thick tincture, which is a good pectoral, and very powerfully promotes expectoration, in doſes of gut. 40 to 32, in any warm liquor, eſpecially at bed-time. There is an acid ſpirit too diſtilled from honey; which is ſaid to be good to cauſe the hair to grow, but is of no farther uſe.

SACCHARUM PURISSIMUM RUBRUM CANDUM. *Double-refined Brown and Candy Sugar.*

Sugar is the eſſential ſalt of arundo ſaccharifera, or beautiful large cane, growing in the Indies; the expreſſed juice of the cane is clariſied with lime water, and boiled down to a due conſiſtence; and, after being removed from the fire, the ſaccharine particles concrete from the groſſer unctuous matter, called treacle or mellaſſes; this impure or brown ſugar, is farther purified in conical moulds, by ſpreading moiſt clay on the upper broad ſurface; when imported it is clarified by our refiners at home, by boiling with whites of eggs; and, after deſpumation and a due evaporation, is poured into moulds. The candy or cryſtals are prepared by boiling down ſugar to a certain pitch, and removing it to a hot room. Sugar is ſo generally known and uſed, by all ranks of people, that it would be unneceſſary here to ſay much about it. Sir *John Pringle* is of opinion, that it is owing to the antiſeptic quality of ſugar, that we ſo ſeldom hear of putrid ſcurvies, leproſies, dyſenteries, plagues, peſtilential fevers, *&c.* formerly ſo frequent. There is a ſpirit diſtilled from coarſe ſugar, or melaſſes, mixed with water; if it is rectified by three diſtillations, it is called alcahol; it is of the ſame uſe as the ſpirit of wine; and is greatly preferable to our malt ſpirits, both for ſoftneſs and flavour.

RÆPARATA.

PRÆPARATA.

L. E. Oleum Amygdalorum. *Oil of Almonds.*

Is prepared indifferently from ſweet and bitter almonds: the oil obtained from both ſorts is altogether the ſame. All the oils, obtained by expreſſion, have nearly the ſame virtues: ſome indeed have been extolled by particular perſons, as the oil of the *palma chriſti* in bilious cholics; but they all ſo nearly agree, that there are ſcarce any of them kept or made, but the oil of almonds and the oil of linſeed: their virtues I have already mentioned.

L. E. Emulsio communis. *Common Emulſion.*

Is made of gum arabic ℥ſs, diſſolved in ℔ 2 m. of warm barley water; to which, when cold, are added, ſweet almonds blanched ℥ 1, double-refined ſugar ʒ 6, being previouſly beat with the almonds, and then ſtrained. The Edinburgh College directs their emulſion to be made of ſweet almonds ℥ 1, beat in a marble mortar, and then put into ℔ 2 of common water; to the ſtrained liquor are added, of cinnamon water ℥ 1, white ſugar ʒ 2.

Emulſio Arabica, *Arabic Emulſion*, is made of gum arabic ℥ſs, diſſolved in water, and prepared as the foregoing emulſion. Theſe liquors are chiefly made uſe of for diluting and obtunding acrimonious humours; and particularly in hea of urine, and in ſtranguries; ariſing either from a natural ſharpneſs of the juices, or from the operation of cantharides, or other irritating medicines.

SYRUPI.

L. E Syrupus ex Althæa. *Syrup of Marſhmallows.*

Is made of marſhmallow roots freſh ℔ 1, boiled in a gallon of water to one-half; which, when cold, is ſtrained; and, after ſettling, the clear liquor is poured off, and boiled with ℔ 4 of double refined ſugar, till the whole weighs only ℔ 6. The Edinburgh College directs this ſyrup to be made of marſhmallow roots ℥ 3, boiled in ℔ 6 of common water, to the conſumption of the third part; towards the end there are added, of liquorice ℥ 1, Engliſh maiden-

hair

hair ℥ſs; to the ſtrained and decanted liquor are added ℔6 of white ſugar, and the whole boiled till it becomes of the conſiſtence of a ſyrup. This ſyrup is chiefly uſed in nephritic caſes, for ſweetening emollient decoctions, &c. but is of little ſervice when uſed by itſelf.

L. Syrupus Simplex. *Simple Syrup.*

Is made of as much double-refined ſugar diſſolved in water as is ſufficient to make it into the conſiſtence of a ſyrup. This ſyrup is a plain liquid ſweet, void of flavour and colour; it is convenient for ſundry purpoſes. If barley water is uſed, it is called Saccharum Hardeatum, Barley Sugar. This is rarely prepared by the apothecaries, or conſidered as a medicine.

E. Lohoch de Lino. *Lohoch of Linſeed.*

Is made of oil of linſeed freſh drawn, balſamic ſyrup āā ℥1, flowers of ſulphur, white ſugar āā 32 mixed.

FORMULÆ EXTEMPORANEÆ.

℞ Alth. rad. ℥2, coq. in aq. fontan. ℔2 ad ℔2 adde ſyr. e ſucco. limon. ℥2.

℞ Amygd. dulc. N° 15, ol amygd. ℥1, gum. arab. ſacchar. alb. āā 32, aq. cinnam. ſimpl. ℥8, f. emulſio.

℞ Amygd. dul. excort. N° 15, contunde in mortar. ſenſim affundendo aq. hordeat. ℔2, colaturæ adde ſacchar. alb. ℥1.

℞ Caricæ uvæ paſſæ althææ rad. āā ℥1, glycyrrhiz. 32, aq. bullient. ℔2, infunde & cola.

℞ Gum. arab. 32, coque in aq. hordei ℔2, adde ſyr. e ſucc. limon. ℥iſs pro potu.

℞ Limac. N° 3, rad. eryng. 34, hordeat. 32, aq. font. q. ſ. coq. & cola.

℞ Limac. N° 12, lactis vacc. ℔2, coq. ad dimid. adde aq. roſar. ℥1, ſacchar. pur. 35.

℞ Uv.

℞ Uv. paſſ. rad. ſarſaparill. glycyrrhiz. āā ℥5, raſur. C. C. 34, ſem. hyperic. manip. 1 aq. hordeat. ℔3 ad ℔2 in finem adde balſ. tolutan. 33 cola; cui adde ſyrup. ex alth ℥3.

℞ Sem. lin. ℥1, glycyrrhiz. ℥ſs, aq. bullient. ℔3, infunde per horas aliquot & cola pro potu.

℞ Sperm. cet. (mucilag. gum. arab. ſolut.) ℈1, aq. menth. vulg. ſimpl. ℥2, ſyr. balſam. 32, f. hauſtus.

℞ Sperm. cet. (vitell. ov. ſolut.) 33, aq. cinnam. ſimpl. ℥6, ſyr. balſam. ℥iſs, f. mixtura doſ. cochl. 2.

℞ Rad. conſolid. major. tenuiter inciſ. ℥4, aq. font. ℔3, coq. ad ℔2, deinde adde amygdal. ſem. papav. errat. āā ℥ſs, ſacchar. alb. q. ſ. f. emulſio, cui adde ſal. prunel. 31, ſacchar. ſaturn. ℈1, m. ſ. a. D. ℥4, bis vel ter in die.

℞ Aq. hordeat. ℔2, gum. arab. ℥3, ocul. ♋ ℥iſs, ſacchar. q. ſ.

℞ Aq. hord. ℔2, gum. arab. ℥1, parum coque & cola.

℞ Aq. hordeat. ℥10, mucilag. gum. arab. ℥1, ſacchar. alb. q. ſ.

℞ Mucil. ſem. cydonior. ℥ſs, mel. roſac. ℥iſs, ſyr. e mecon. ℥1, f. linctus.

℞ Ol. amygd. ℥1, gum. arab. 31, ſyr. balſam. ℥ſs, diu tritis, adde aq menth. vulg. ſimpl. ℥8, f. mixtura.

℞ Syr. balſam. gum. arab. āā ℥1, f. linctus.

℞ Fol. malvæ manip. 8 aq. fontan. ℔8, coq. ad ℔6, adde rad. alth. ℥4, glycyrrhiz. ov. paſſ. āā ℥1, gum. arab. 34, ſal. prunel. 32, coq. deinde cola; cui adde ſyr. ex alth. q. ſ.

℞ Hordei uv. paſſ. āā ℥1, fic. N° 14, ſem. aniſ. 32, aq. fontan. ℔3, coq. ad ℔2, & cola ad uſum.

℞ Uv. paſſ. ℥1, glycyrrhiz. ſem. melon. āā 34, aq. hord. ℔3, coque ad ℔2, colaturæ adde conſerv. roſar. ℥3.

℞ Gum. arab. ℥1, coq. in aq. font. donic. ſolvetur, dein adde ſem. anthææ papav. hort. amygdal. āā ℥1, m. f. emulſio cui adde ſacchar. ſatur. gr. 16, ſyr. ex alth. ℥3, m. ad uſum.

℞ Amygdal.

℞ Amygdal. dul. ℥2, cucum. ſem. melon. papav. hort. āā ℥?, contuſ. in mortar. deinde adde aq. hordeat. ℔2—ſem. aneth. comp. ℥4, vin. alb. 36, ſacchar. ℥3, m. f. emulſio.

℞ Heder. terr. fol. plantag. latifol. āā ℥ſs, aq. comm. ℔3, coq. ad ℔2 cola; colaturæ adde ſacchar. alb. ℥ſs, doſ. ℔1 in die.

℞ Ol. olivar. 33, ſpt. C. C. 32, aq. puleg. ſimpl. ℥12, ſyr. pectoral ℥2 M.

℞ Balſ. copaib. 31, aq. fontan. ℥4—cinnam. ſpt. ℥1, ſyr. e cort. aurant. 36 M.

℞ Camphor. ℈1, amygd. dul. N° 6, roſar. damaſcen. ℥4, ſyr. ſimpl. ℥1 m.

℞ Extr. thebaic. gr.1, conſerv. roſ. ℈iſs, m. f. bolus.

℞ Ol. amygd. dulc. vel olivar. ℥2, a. q. fontan. ℥6, ſpt. ſal. ammon. gut.30, ſacchar. alb. ℥ſs m. ſumatur ſubinde urgente tuſſi cochl. 2.

℞ Sperm. cet. in vitell ov. q. ſ. ſolut. 32, aq. fontan. ℥6, ſal. C. C. 31, ſyr. balſ. ℥1, m. ſum. 4ta quaque hora cochl. 3.

℞ Conſerv. fruct. cynoſb. ℥iſs, ſperm. cet. 33, ocul. cancr. præp. 31, ſyr. ſimpl. q. ſ. f. elect.

℞ Conſerv. fruct. cynoſb. pulp. paſſul. exacinat. āā ℥6, ſperm. cet. ℥2, ſpt. vitriol. fort. ℈4, ſyr. balſam. ℥6, m. f. elect.

℞ Sperm. cet. conſerv. fruct. cynoſb. āā ℔ſs, balſam. peruvian. ℥iſs, teſt. oſtreor. præp. ℥2, ſyr. e mecon. ℔iſs, m. f. elect.

℞ Amygdal. 36, glycyrrhiz. 34, rad. iridis floren. 32, conſerv. roſar. ℥ſs, ol. aniſ. gut.10, ſyr. balſam. q. ſ. elect.

℞ Conſerv. roſar. rub. ℥2 — fruct. cynoſbath. 34, zingib. ℈3, croci ℈1, ſpt. ſulphur. per campanam gut.12, ſucc. ſcorbutic. q. ſ. f. elect.

℞ Ceræ flav. 33, ſperm. cet. 32, ol. amygdal. ℥ſs, ſyr. balſam. q. ſ. ut f. elect.

℞ Gum. tragacanth. rad. conſolid. major. āā ℥1, conſerv. roſar. rub. 34, ſyr. ex alth. q. ſ. ut f. elect.

℞ Balſam. Locatell. ℥1, rhabarb. 32, ſyr. ex alth. q. ſ. f. elect.

℞ Uv. paſſ. conſerv. roſar. rub. āā ℥1, ſyr. pector. ſacchar. ſpec. aromatic. āā ℥ſs, ſpt. ſulph. per. campan. gut.15, ſyr. ſimpl. q. ſ. f. elect.

℞ Rad.

℞ Rad. alth. ℥2, uv. paſſ. ℥iſs, pulv. e tragacanth. comp. 34, ſyr. ex alth. q. ſ.

℞ Conſerv. fruct. cynoſb. ℥2, pulv. coccinell. rad. iridis ſyr. rub. indæi q. ſ. f. elect.

℞ Conſerv. fruct. cynoſb. ℥1, nuc. moſch. pulv. rad. eryng. āā 32, abrægriſ. ℈1, moſch. gr. 10, ſyr. balſam. q. ſ. f. elect.

℞ Conſerv. fruct. cynoſb. ℥1, — roſ. rub. ℥iſs, balſam. locatel. 34, ſyr. balſam. q. ſ. f. elect.

℞ Balſ. tolutan. vitel. ov. ſolut. 34, balſ. copaib. ℈2, conſerv. roſ. rub. ℥2, ſyr. balſ. q. ſ. ut f. elect.

℞ Extract. glycyrrhiz. ℥1, ſperm. cet. opobalſ. āā 31, conſerv fol. lujul. —— flor. roriſmarin. āā ℥1, pulv. croc. ℈iſs, moſch. gr. 8, ſyr. papav. errat. q. ſ. f. electarium.

℞ Styracis 32, flor. ſulph. 31, benzoin. ℈iſs, ſyr. balſam. q. ſ. f. pil. med. D. N° 3 vel 4, bis in die.

℞ Gum. ammon. 31, croc. ſal. ſuccin. flor. benzoin. āā ℈iſs, ſyr. balſ. q. ſ. f. pil. 48, quarum cap. N° 3 vel 4, bis vel ter in die.

℞ Sacchar. cand. alb. ſperm. cet. 31, ſyr. balſ. q. ſ. f. pil.

℞ Sacchar. cand. alb. 32, pulv. e gum. tragacanth. 32, balſ. tolutan. ℈2, flor. benzoin. 31, opobalſ. q. ſ. f. pil. D. 4 vel 5, bis in die.

℞ Pulv. enul. campan. iridis rad. glycyrrhiz. āā ℈1, croci flor. benzoin. āā gr. 10, ſacchar. cand. alb. ℈2, balſ. ſulph. barbadenſ. q. ſ. f. pil.

℞ Gum. reſin. guaiac. āā 31, ol. e rad. ſaſſaf. eſſent. gut. 20, balſ. peruv. q. ſ. f. pil.

℞ Balſam. tolutan. 31, gum. guaiac. 32, flor. benzoin. balſam peruv. ℈iſs, ol. terebinth. gut. 8, ov. vitell. q. ſ. f. pil. D. 3, bis in die.

CHAP. II.

Of RESTORATIVES.

RESTORATIVES differ little from agglutinents, only they have a little more ſubtile and adheſive nature, whereby they pierce the finer ſtrainers and ſecretories, and enter into, and nouriſh the remoteſt parts. All under this claſs are rather nutrimental, than medicinal, and are adminiſtered rather to repair the waſtes of the conſtitution, than to alter and rectify the diſorders. This they accompliſh by mixing with the animal fluids, and by adhering to the interſtices of the ſolids that have been worn away by action, and thereby ſtand in need of a recruit.

FOLIA, &c.

TRICHOMANUS. *Maiden-hair.*

Has a ſweet mucilaginous ſub-aſtringent taſte; good in diſorders of the breaſt, from a thinneſs and acrimony of the juices; promotes the expectoration of tough phlegm; opens obſtructions of the viſcera and kidnies; good in coughs, aſthmas, pleuriſies, and conſumptions. There is a ſyrup ſometimes to be met with called *Syrupus Capillarum Veneri*, *Syrup of Maiden-hair*, prepared from a ſtrained decoction of maiden-hair and liquorice, boiled up to the conſiſtence of a ſyrup, with a ſufficient quantity of ſugar; but little good was either found or expected from the uſe of it.

TUSSILAGO. *Colt's Foot.*

Has a glutinous, herbacious taſte; good in coughs, and other diſorders of the breaſts and lungs; in conſumptions, and defluxions of rheum, and in other ſuperfluous humidities.

VIRGA AUREA. *Golden Rod.*

Has a moderately aſtringent and bitter taſte; is good in debility and laxity of the viſcera; and in diarrhœas and dyſenteries.

CYNOSBATI

Cynosbati Fructus. *Hipps.*

Are good in conſumptive caſes, and diſtempers of the breaſt, in tickling coughs and defluctions of rheum.

Conſerva Fructus Cynoſbati, *Conſerve of Hipps*, is kept in the ſhops, and is a ſoft, cooling reſtringent; 36, or more, are given at a time in bilious fluxes, ſharpneſs of urine, and in hot indiſpoſitions of the ſtomach.

BALSAMA.

Tolutanum. *Tolu.*

Is brought from the Spaniſh Weſt Indies, of a yellow brown colour, inclining to red; has a very fragrant ſmell, a warm, ſweet, pungent taſte; is an excellent balſamic, reſtorative and corroborant in ſeminal weakneſs, old gleets, gonorrhæas, dyſenteries, and ſuppreſſion of urine; warms the habit, quickens the circulation, ſtrengthens the nerves, attenuates viſcid humours, ſoftens the juices, and is good in decays of the lungs, catarrhs, and coughs.

Benzoinum. *Benzoine.*

Is a concrete, reſinous juice, brought from the Indies, of a whitiſh light brown colour; has a fragrant ſmell, and light ſweet taſte; has the virtues of Tolu in an inferior degree, good in catarrahs, coughs and aſthmas; is recommended as a cephalic; reſiſts malignity of the humours: uſed externally in diſcutient and ſtrengthening plaſters.

Styrax Calamita. *Storax.*

Is an odoriferous, reſinous ſubſtance, exuding from a tree in Italy, and in other warm climates; has a yellow, red, or brown colour, and fragrant ſmell; is a good pectoral and cephalic; thickens and ſoftens ſharp rheums and coughs, and irritations ariſing from them; warms and ſtrengthens the ſtomach; good in all debility and languors of the nervous ſyſtem, and aſſiſts perſpiration: rectified ſpirit, diſſolved in water, elevates almoſt all its fragrancy. To render

Storax fit for medical purpoſes, it is purified by water, or rectified ſpirit, in which it totally diſſolves, called *Styracis colatio, the ſtraining of Storax.*

RADICES.

Eryngium. *Eryngo.*

Has a pleaſant ſweet taſte, with a light degree of aromatic warmth and acrimony; is accounted aperient, diuretic, and reſtorative; ſoftens the acrimomony of the juices; good in venereal caſes and ſcurvies; prevents the flux of acrimonious humours, and eroſions of the proſtatæ; or where-ever they make thoſe ulcerations that are difficult to cure. The *Radix Eryngii Candita, candid Eryngo Root* is kept in ſhops.

Iris. *Flower-de-luce.*

Has a bitter, acrid, nauſeous taſte, and is ſtrongly cathartic, and much recommended in doſes of ℈3 or 4; it has a grateful flavour; and is undoubtedly a uſeful cathartic, when judiciouſly corrected.

Satyrion.

Has a viſcid ſweet taſte, faint unpleaſant ſmell, and white colour; thickens the ſerous humours, and defends the ſolids from acrimony; is a good reſtorative in weak decayed conſtitutions, has an analeptic and aphrodiſiac virtue.

ANIMALIA,

Vipera. *Viper.*

The fleſh of the viper is innocent, and of great ſervice in ſcrophulous, leprous, and other obſtinate chronical diſorders; is highly nutritious; therefore a good reſtorative in ſome kinds of weakneſs, and emaciated habits.

Limax. *Snail.*

Abounds with a viſcid glutinous juice; cools and cleanſes the viſcera; and is ſaid to be a good reſtorative in weakneſſes and conſumptions: the beſt way of exhibiting ſnails is to boil them in milk.

Lac-

Lac. *Milk.*

Milk is ſoft and balſamic; both nutritive and reſtorative, if the juices are not ſharp, nor an acid in the *primæ viæ*: it ſhould be drank with a ſmall quantity of teſtacious powders. Human milk is the ſweeteſt, aſſes next to that, goat's milk next, and cow's milk heavieſt of all. The ſaline ſubſtance obtained from aſſes milk is white and ſweet; that from the others brown, or yellow; and that obtained from cow's milk is the leaſt ſweet of all. It appears therefore, that aſſes milk contains more ſerum, and much more of the ſaccharine and ſaline matter, than that of cows and goats; and that the two latter abound moſt with unctuous matter; hence they are found to be moſt nutritious, whilſt the firſt proves the moſt effectual, as an aperient. Whey is a ſweetner and cooler of the blood, and promotes the natural ſecretions in general; and, if its uſe is duly continued, does good ſervice in ſcorbutic and other diſorders, proceeding from thick phlegm, and obſtructions of the viſcera.

PRÆPARATA.

L. E. Flores Benzoini. *Flowers of Benzoine.* D. gr. 3 to 12.

Are the finer part of benzoine, raiſed from the groſs powder by ſublimation; when made in perfection, they have an agreeable taſte, and fragrant ſmell; are wonderfully pectoral and ſudorific; and are particularly excellent in aſthmas; for they greatly attenuate and open viſcid obſtructions, and cleanſe the bronchia; are fit for any form, and give a grateful ſcent to any compoſition. They totally diſſolve in ſpirit of wine; and likewiſe by the aſſiſtance of heat they diſſolve in water, but ſeparate again from it when the liquor turns cold, ſhooting into ſaline ſpicula; by the medication however of ſugar, they remain ſuſpended in cold water, and thus form an elegant and balſamic ſyrup. As uſually prepared, they contain an offenſive oil, which prevents their being much in uſe in the preſent practice; but when perfectly depurated by ſolution, filtration, and cryſtalization, they make a pleaſant and uſeful medicine. There is a tincture called *tinctura benzoini*, kept in ſome ſhops; it is made of benzoine, reduced to powder, ℥ſs, digeſted in a ſand-heat for three or four days in ℔ i of rectified ſpirit of wine; and then decanted for uſe: ſome uſe tartarized ſpirit of wine in preparing this tincture; it is good in aſthmas, and other diſorders of the lungs, given in any convenient vehicle. If you add one ounce of ſtorax, and one dram of balſam of *Tolu*, the tincture will have not only a moſt grateful ſcent, and deeper tinge,

tinge, but will be alſo much better for inward uſe. Alone it is moſt uſed externally as a coſmetic, to take ſpots out of the face, and clear and ſmooth the ſkin. One dram of it put into four ounces of water turns it white; and is called *lac virginis*, *virgin's milk*. After the ſublimation of the flowers, by augmenting the fire, there will ariſe a black oil, with an acid ſpirit: the oil, by a ſecond diſtillation with water, will put on a fine amber colour, with a fragrant ſcent; and is an admirable internal medicine, a good vulnerary, and powerful diuretic; and is, by ſome, reckoned a ſpecific againſt the ſtone and gravel in the kidneys and bladder. The ſpirit is diuretic, but not very pleaſant, by reaſon of its empyreuma.

TINCTURÆ.

E. Tinctura Balsamica. *Balſamic Tincture.* D. gut. 10 to 30.

Is made of balſams of copaiba ℥1ſs, of Peru 3ſs, Engliſh ſaffron 31, digeſted for three days in B. A. with ℔ 1 of rectified ſpirit of wine, and then ſtrained. This is an excellent balſamic, both for internal and external purpoſes; good in *fluor albus*, gleets, cachexies; in ſome kinds of aſthmas, and nephritic caſes; ſtrengthens the tone of the viſcera, and corroborates the nervous ſyſtem in general; ſeldom fails of ſucceſs in cold, languid, phlegmatic habits; it is hurtful in bilious and plethoric conſtitutions, where there is a tendency to an inflammation; for it will increaſe the heat, and raiſe continued fibrile ſymptoms.

E. Tinctura Tolutana. *Tincture of Tolu.* D. 31 to 2.

Is made of the balſam of Tolu ℥1ſs, digeſted in B. A. with ℔ 1 of rectified ſpirit of wine, till the balſam is diſſolved, and then it is ſtrained for uſe. This tincture poſſeſſes all the virtues of the balſam itſelf; and is good in rheumatic pains, in ſeminal and other weakneſſes, *&c.* It may be taken in any convenient vehicle; and mixed with plain ſyrup of ſugar, it forms an elegant balſamic ſyrup.

L. Vinum Viperinum. *Viper Wine.*

Is made of dried vipers ℥2, macerated with a gentle heat, for a week, in ℔ 3 m of white wine, and then ſtrained. Some compoſitions under this name have been celebrated as reſtoratives, in debilities and decays of conſtitution; but, it is very doubtful, whether the viper, freſh or dry, communicates much virtue to the wine. Vipers yield a great deal of volatile ſalt, to which many great

great and wonderful virtues have been attributed; is ſaid to give relief even in thoſe diſeaſes, which are moſt refractory and difficult of cure; as apoplexies, lithargies, convulſions, palſies, and other diſeaſes of the brain; alſo in diſtempers of the breaſt, aſthmas, pleuriſies, palpitation of the heart, *&c.* for it opens and attenuates exceedingly, whereby it divides and diſlodges humours in the moſt remote receſſes, and diſpoſes them for ſecretion; good in all diſtempers of the fair ſex; from its activity it prevents the blood from running into grumes and unnatural coheſions, which obſtruct the veſſels. It is ſaid to have a wonderful efficacy in all cutaneous diſeaſes. The oil and phlegm, from which the ſalt was ſublimed, being mixed with water, and again diſtilled, gives over a water and ætherial oil: the firſt is ſaid to be ſudorific, and to poſſeſs all the virtues of the volatile ſalt, but in a much lower degree. The oil is recommended in all the diſeaſes, in which the ſalt is preſcribed.

Eſſentia Viperarum, *Eſſence of Vipers*, is the inſipid matter that remains at the bottom of the retort, after a diſſolution of dried vipers in ſpirit of wine, with thrice its weight of tartarized ſpirit of wine, mixed with the volatile ſalt and rectified ſpirit of oil of vipers; which union is obtained by the addition of *tinctura regalis*. The eſſence is endued with all the virtues of the volatile ſalt; and, if poſſible, exceeds it. Its doſe is from gut. 20 to 100, in any convenient vehicle.

Tinctura Viperarum Compoſita, *Compound Tincture of Vipers*, is made of dried vipers ℥2, digeſted ſome hours with a ſpirit drawn from an equal quantity of flowers of ſulphur, and ſweet ſpirit of nitre, with one-third of the quantity of crude antimony, and oil of ſulphur *per campanum*, or oil of vitriol; to the ſtrained menſtruum are added, of cochineal, ſaffron, and Virginian ſnake root ãã ℥2; the whole is digeſted for ſome time, and the clear tincture is decanted for uſe. It is an excellent medicine, a powerful diaphoretic, alterative and deobſtruent; and may be given from gut. 10 to 60, in canary, or in any other convenient vehicle; but the proceſs for obtaining it is too tedious and expenſive to be often gone about.

Jus Viperinum, *Viper Broth*, is made of a middle-ſized viper, free'd from the head, ſkin, and inteſtines; and boiled in ℔ 2 of water to ℔ 1ſs; the fat is taken off during the time of boiling; then add to the liquor a middle-ſized pullet, drawn and free'd from ſkin and fat; then the liquor is again put upon the fire, when it begins to boil the pullet is taken out, and its fleſh chopped into little pieces, and again put into the liquor; when it begins to boil, the veſſel is removed from the fire, the fat carefully taken off, and the broth poured out for uſe.

uſe. This broth contains the virtues of the viper, and proves a very nutricious and reſtorative food; which, when continued for a length of time, has done very great ſervice in leprous and other obſtinate cutaneous diſeaſes. The dried fleſh of the vipers, brought from abroad, is far inferior to this broth; and has very little, if any virtue. The wines and tinctures of this animal, as we have them, probably contain little of its virtues; and the ſalt differs little or any from other volatile ſalts; though ſome are very ſolicitous to have it thought they poſſeſs extraordinary virtues.

Trochiſci Viperini pro Theriaca Andromachi, *Viper Troches for Venice Treacle*, are made of viper fleſh ℥8, biſcuit-bread pounded and paſſed thro' a ſieve ℥2, mixed altogether with a ſufficient quantity of liquor, in which the vipers were boiled. They are very inſignificant, and never uſed but in the theriaca.

L. E. Elixir Paregoricum. *Paregoric Elixir.* D. gut. 5 to 100.

Is made of flowers of benzoine, ſtrained opium āā ʒ1, camphor ϑ2, eſſential oil of aniſe-ſeed ʒſs, digeſted in ℔ 2 m. of rectified ſpirit of wine, and then ſtrained for uſe. The Edinburgh College directs it to be made of flowers of benzoine, Engliſh ſaffron āā ʒ3, opium unprepared ʒ2, digeſted in a cloſe veſſel for four days, with ℔ 1 of ſpiritus volatilis oleoſus; and to the ſtrained liquor ʒ1ſs of the eſſential oil of aniſe-ſeed is added; and the whole well mixed by ſhaking. This elixir, as the London College makes it, is taken from *Le Mort*, with the omiſſion of three unneceſſary ingredients, *viz.* honey, ſalt of tartar, and liquorice. It was originally preſcribed under the title of *Elixir Aſthmaticum*, which it well deſerved; for it admirably allays the tickling, which provokes frequent coughing, and, at the ſame time, opens the breaſt, and procures free liberty of breathing. The opium takes off the uneaſy ſenſation, occaſioned by acrimonious humours, and gives a temporary relief from the ſymptoms, whilſt the other ingredients tend to deterge and clean the ſmall glands, and to remove the cauſe, and prevent the return. The opium is ſo managed in this compoſition as to prove an opener, by relaxing the fibres, and thereby enlarging the capacities of the veſſels, in which conſiſts the cure of aſthmas; becauſe thereby the blood flows eaſier through the lungs, and they have more room to expire in; it is alſo particularly ſerviceable in the chin-cough; and may be given in hyſſop water, maidenhair tea, canary, *&c.* ℥ſs, by meaſure, contains about a grain of opium. This elixir is preferable to what *Bates* gives under the title of *Tinctura Aſthmatica*, *Tincture for an Aſthma*; which he directs to be made of elecampane roots, florentine orice, ſeeds of aniſe, caraway, liquorice, āā ℥2,

Leaves

Leaves of carduus benedictus, two handfuls of raiſins ſtoned ℔ 2, ſena ℥ 6, digeſted for four days in ℔ 6 of aniſe-ſeed water, and then ſtrained for uſe. This is ſaid to have done good in corpulent habits when long continued: it may be taken at bed-time, and in the morning, in doſes of ℥ 1 to 3.

E. Elixir Pectorale. *Pectoral Elixir.*

Is made of balſam of Tolu ℥ 2, balſam of Peru ℥ 1, flowers of benzoine, Engliſh ſaffron āā ℥ ſs, digeſted in B. A. for three days in ℔ 2 of rectified ſpirit of wine; and then ſtrained off for uſe. This is an excellent pectoral.

L. Aqua Hardeiata. *Barley Warter.*

Is made of pearl barley ℥ 2, waſhed in cold water, and then boiled in ℔ ſs of freſh water for a ſhort time; and, having thrown away the water, the barley is again boiled in ℔ 4 of freſh water, till the half of the water is conſumed. This liquor is to be freely drunk, as a diluter in fevers and other diſorders; and however trivial midicines of this claſs may appear to be, yet they are of greater importance in the cure of ſundry acute diſeaſes, than more elaborate preparations.

L. E. Decoctum Pectorale. *Pectoral Decoction.*

Is made of common barley ℥ 2, boiled ſometime by itſelf in ℔ 4 of water and towards the end of boiling are added of ſtoned raiſins, figs āā ℥ 2, liquorice ℥ ſs, and the whole boiled till ℔ 2 only of liquor remains after ſtraining. The Edinburgh College makes their decoction of ſtoned raiſins, barley water āā ℥ 1, fat figs N° 4, boiled in ℔ 6 of common water to ℔ 4, adding towards the end of florentine orris root, liquorice, flowers of colt's foot āā ℥ ſs, and then ſtrained. Both theſe decoctions are uſeful ſoft pectorals, and very agreeable to the palate, eſpecially the firſt. They are good auxiliaries in ſharp defluxions on the breaſt and lungs, and have ſometimes done ſervice by themſelves; they may be taken at pleaſure. This decoction may be prepared of leaves of maiden-hair, ground-ivy, ſcabious, āā one handful, florentine orris, and colt's foot.

S Y R U P I.

L. E. Syrupus Balsamicus. *Balſamic Syrup.*

Is made of balſam Tolu ℥ 8, boiled for two or three hours in a circulating veſſel, with ℔ 3m. of water; the liquor, when cold, is ſtrained off for uſe; and a proper quantity of ſugar added to make it a ſyrup. The Edinburgh College

directs this ſyrup to be prepared of ſimple ſyrup, freſh made ℔ 2, into which is dropped of the tincture of Tolu ℥ 1, ſhaken and well mixed together, and then put in B. M. until the ſpirit is exhaled. Both theſe ſyrups are moderately impregnated with the agreeable flavour of the balſam, but taſtes ſomewhat acrid. There is a preparation called *Syrupus Balſamicus Compoſitus*, *Compound Syrup of Balſam*, made of balſam of Tolu, copaiba, ſtorax, benzoine, olibanum, maſtich, ammoniacum, tacamahacca, gum elemi, chio turpentine ā ℥ 1, put into a circulating veſſel with ℔ 2 of canary wine, and as much orange water, having ſtood in a ſand heat for three or four days, gradually increaſing the heat till the liquor ſimmers; when cold, the clear part it poured off, and mixed up with a ſufficient quantity of bruiſed ſugar candy.

L. Syrupus Pectoralis. *Pectoral Syrup.*

Is made of the leaves of Engliſh maiden-hair dried ℥ 5, liquorice ℥ 4, macerated for ſome hours, ℔ 5 of boiling water, and to the ſtrained liquor a proper quantity of ſugar is added.

When the Edinburgh College retained this ſyrup, which now they have laid aſide, it was made of florentine orris root, elecampane root, liquorice ā ℥ 2, colt's-foot flowers, maiden-hair, ground-ivy ā ℥ 1, fat figs, N° 12, boiled in ℔ 8 of water, till one fourth part is waſted, and to the ſtrained liquor ℔ 6 of white ſugar are added, and the whole boiled to the conſiſtence of a ſyrup. They are both uſeful ſyrups for ſoftening acrimonious humours, allaying tickling coughs, and for expectorating tough phlegm. The balſamic and pectoral ſyrups are of admirable ſervice in all diſtempers of the breaſt and lungs; they expectorate, deterge, and heal all thoſe meanders and ſtraitneſſes, where viſcid humours are apt to lodge, and occaſion knots, tubercles, and ulcerations; are very uſeful in a gonorrhœa; and the firſt in particular is good in the gout, and proves of wonderful ſervice in all decays from age, as it keeps the ſhrinking fibres yet moiſt, warm, and elaſtic. They may be taken in any proper vehicle, from ℥ 1 to 5, every day for ſome time.

There is a preparation called *Syrupus Limacum*, *Syrup of Snails*, made of garden ſnails free'd from their ſhells and ſlit ℔ 1, tied up in a bag with ℔ ſs of fine ſugar, and hung up in a cellar; the ſyrup drops from the bag: after the ſame manner a ſyrup of earth-worms may be made. This ſyrup is not kept in the ſhops, but is ſurely worth making for children inclining to hectics and conſumptions.

ELEC-

ELECTARIA, &c.

E. Electuarium Pectorale. *Pectoral Electuary.*

Is made of the rob of elder ʒ2, ſperma-ceti diſſolved in the yolk of an egg ʒſs, flowers of benzoine ʒ1, and a ſufficient quantity of balſamic ſyrup. This electuary ſoftens and heals the lungs; is good in diſorders of the breaſt, which proceed from a laxity and debility of the veſſels, and from a thin acrimonious ſtate of the fluids. It is ſufficiently agreeable, and may be taken to the quantity of a nutmeg or more, ſeveral times a day.

L. E. Balsamum Locatelli, *Locatelli's Balſam.* D. ℈2 to 32.

Is made of oil olive ℔ 1, yellow wax ℔ ſs, mixed together over a gentle fire, to which are added of Straſburgh turpentine ℔ ſs, red ſaunders 36, and the whole mixed, and ſtirred till cold. The Edinburgh College directs it to be prepared of yellow wax ℔ 1, melted over a gentle fire with ℔ ſs of oil olive; to which, when removed from the fire, are added of chian, or Straſburgh turpentine ℔ ſs, balſam of Peru ʒ2, dragon's blood ʒ1, and the whole ſtirred till cold. This electuary is good in internal bruiſes and hæmorrhages, eroſions of the inteſtines, ulcerations of the lungs, dyſenteries, and in ſome kinds of coughs and aſthmas: ſome have likewiſe applied it externally for deterging and incarnating recent wounds and ulcers.

L. E. Lohoch Commune. *Common Lohoch.*

Is made of the oil of almonds, ſyrup of marſhmallows, or balſamic ſyrup āā ʒ1, and white ſugar 32 m. This is a good emollient in aphthæ, and in other like complaints.

FORMULÆ EXTEMPORANEÆ.

℞ Gum ammon. 33, in ceti 34, ſolut. vin. rhen. ʒ3, aq. hyſſop. ʒ4, cola ad uſum D. cochl. 1, ter quaterve in die.

℞ Opobalſam. 33, (in vitel. ovi ſolut.) ol. lini ʒ1, aq. hordeat. ℔ iſs, vin. canar. ʒ6 m, D. 3 vel 4, bis vel ſæpius in die.

℞ Balſ. tolutan. (in ov. vitel. ſolut.) ʒ2, aq. hordeat. ℔ 2 m. ſ. a. doſ. ʒ2 ad 4, bis vel ter in die.

℞ Sal. tartar. ʒ4, croci ℈iſs, rad. glycyrrhiz. ʒ2, aq. comm. ℔ 3, infunde per octo vel decem horis deinde cola.

℞ Caryophyll. rad. ʒ2, veronic. maſ. hed. terr. āā ʒiſs, glycyrrhiz. ʒ1, fœnicul. dulc. ʒ3, aq. bullient. ℔ 4, infund. per horæ dimidium deinde cola; colaturæ adde mel. q. ſ.

℞ Rad. enul. campan. ſacchar. alb. ribeſ. fruct. āā ʒ4, vin. alb. ℔ 4, infunde frigide per 14 dies deinde cola; doſ. ʒ2, bis in die.

℞ Succ. glycyrrhiz. ʒ1, croc. ℈1, ſem. cardam. carui aniſ. āā ʒ2, ſal. tartar. ʒſs, aq. puleg. — hyſſop. āā ʒ4, vin canar. ℔ 2, infunde frigide per aliquot dies deinde cola.

℞ Milleped. ʒ3, gum. ammon. ʒiſs, flor. benzoin. ʒ1, croci balſ. peruvian. āā ℈1, balſ, ſulphur. aniſat. q. ſ. f. pil. med. D. N° 3, bis vel ter in die.

℞ Flor. ſulphur. benzoin. āā ℈iſs, croci ℈1, gum. ammoniac. ʒ1, ſyr. ſimpl. q. ſ. f. pil. D. N° 3, ter in die.

℞ Pul. enul. campan. hed. terr glycyrrhiz. iridis florent. āā ℈ſs, croc. flor. benzoin. āā ℈1, ſacchar. cand. alb. ℈iſs, ſyr. balſam. q. ſ. f. pil. N° 3, ter in die.

℞ Pil rufi ʒ1, pil. e ſtyrace ℈iſs, ol. e ſem. aniſ. eſſ. gut. 3m. f. pil. N° 20, Doſ. 2 vel 3, ſingulis noctibus.

℞ Opii pur. gr. 1, extr. gentian. gr. 4, m. f. pil.

℞ Pil. rufi ℈1, opii gr. 1, m. f. pil.

℞ Pulv. cort. peruvian. ʒ1, balſ. tolutan. ʒ2, opobalſam. ℈iſs, ſacchar. ʒſs, gum. tragacanth. q. ſ. m. ſ. a.

℞ Conſerv. ſummit. abſinth. mar. ʒ2, elect. e bac. laur. ʒ3, pulv. e myrrh. c. ʒ3, ſyr. caryophyl. rub. m. f. elect.

℞ Rad. conſolid. maj. alth. āā ʒ2, ſacchar. pur. ʒ3, ſpec. aromatic. ʒ1, pulv. e tragacanth. ʒ1, ſyr. ex alth. q. ſ. f. elect.

℞ Rad.

℞ Rad. conſolid. ſacchar. pur. āā ℥1, conſerv. roſ. rub. ℥ſs, pulv. maſtich. 31, ſyr. cydon. q. ſ. f. elect. croci ſucc. kerm. 32, ol. e ſem. aniſ. eſs. gut. 4.

℞ Conſerv. roſ. rub. ℥2, uv. paſſ. ℥1, nuc. moſch. ℈iſs, ſyr. papav. errat. q. ſ. f. elect.

℞ Conſerv. roſar. rub. ℥iſs, ſperm. cet. 32 ceræ flav. 33, ol. amygdal. dulc. ℥1, ſyr. balſam. m. q. ſ. f. elect.

℞ Sacchar. cand. alb. ℥4, ol. amygdal. dulc. ℥1, peſt.

℞ Conſerv. roſar. rub. ℥2, balſ. locatell. (in ov. vitell. ſolut.) ℥1, m. ſ. a.

℞ Flor. ſulphur. 34, elect. lenitive. ℥2, ſyr. ex alth. q. ſ. f. electarium.

℞ Amygdal. dul. ℥ſs, mel. ℥12, hyſſop. trichoman. iridis florent. ariſtoloch. rotund. āā ℥iſs, enul. campan. rad. 31, ſucc. glycyrrhiz. q. ſ. f. elect.

℞ Hep. ſulphur. ℈4, balſ. tolutan. ℥iſs, flor. benzoin. ℈2, opii gr. 6, ol. tere. bith. q. ſ. f. pil.

℞ Conſerv. roſar rub. ℥2, pulv. e tragacanth. comp. ℥ſs, flor. benzoin. 31, ſyr. balſam. q. ſ. f. elect.

℞ Sacchar. cand. in aq. roſ. ſolut. ℔1, cui adde ſtyrac. colat. ℥1, benzoin. ℥6, iridis florent. rad. ℥1, moſch. ℈1, m. f. trochiſci.

℞ Balſam. tolutan. iridis florent. rad. āā ℥1, gum. tragacanth. gum. arab. āā ℥ſs, flor. benzoin. 32, ſacchar. cand. ℔1, mucilag. ſem. cydon. q. ſ. f. trochiſci.

℞ Rad. enul. campan. ſucc. glycyrrhiz. (in aqua ſolut.) gum. ammon. (in acet. q. ſ. ſolut.) āā p. æ. ſyr. ex allio q. ſ. f. elect.

℞ Sal. C. C. gr. 15, aq. puleg. ſimpl. ℥iſs, ol. amygdal. ℥ſs, ſyr. ſimpl. ℥ſs, m. f. hauſtus.

℞ Terebinth. venet (in vitel. ov. ſolut.) ℥ſs, decoct. alb. ℔1, m.

℞ Aq. puleg. ſimp. ℔ſs — ſpt. ℥2, ſacchar. alb. ℥4 m.

℞ Ol. oliv. ℥3, ſyr. e mecon. — ex alth. āā ℥iſs, ſacchar. alb. q. ſ. f. linctus.

Chap. III.

Of Vulneraries.

WHAT is collected under this denomination, is that ſort of balſamics, which are not only ſoftening and adheſive, but alſo by their peculiar activity, or diſpoſition to motion, joined with a ſuitable configuration of parts, are apt to abrade and carry along with them ſuch particles as they lay hold of in their paſſage; ſo that they differ from detergents only in degree. All medicines under this claſs cleanſe and heal; they incarnate, and fill up with new fleſh, all ulcerations and foulneſſes occaſioned thereby, both internally and externally. Under this diviſion we likewiſe include thoracics, or thoſe medicines that cure the diſeaſes of the lungs. The function of the lungs is two-fold, reſpiration, and the propulſion of the blood into the left ventricle of the heart, after the coheſions of its parts are attenuated, pounded, and, as it were, reduced to powder. Whatſoever therefore promotes theſe two functions uſed to be called thoracics; but, in truth, there are no ſpecific thoracics; for thoſe which are called by this name act quite in the ſame manner as other medicines, by inciding and attenuating the humours, if too groſs; inſpiſſating them if two thin, and ſtimulating them if too languid, in their circulation. Therefore, if too thin and acrid a lymph glides from the too much relaxed lymphatic veſſels into the lungs, the fumigations of maſtich, frankincenſe, benjamin, are the beſt pulmonics. If there is any alkaline and heating acrimonious exhalation; as in the plague, ſmall-pox, malignant fevers, *&c.* then the vapour of Rheniſh wine, or gun-powder, is a good pulmonic. When there is too great a dryneſs and roughneſs of the larynx and bronchia, frequent in ſome coughs, and ariſes from a defect of the liquid, which is there ſecreted, and if the nervous filaments remain naked and dry, then the beſt arteriacs and pulmonics are thoſe medicines which ſupply a like liquid; as mild oils ſlowly ſwallowed, all that can be received with the air into the lungs, in the form of a ſmall vapour, as the vapour of warm water, farinacious and emolient decoctions; alſo emulſions, linctuſes, ſyrups, eſpecially thoſe prepared from ſweet almonds, white poppy-ſeeds, walnuts, *&c.* and the chief of all arteriacs is opium, which, by taking off the ſenſe of titillation, aſſuages the cough; which, being taken away, the liquors ſecreted in the trachia and bronchia tarry there

there, and, by lubricating them, remove the acrimony: arteriacs, therefore, are all thoſe which reſtrain the cough. Again, if a thick morbid matter ſticks in the lungs, and ſtuffs up the paſſages, it is neceſſary that the matter there contained be rendered moveable and penetrable, ſo that its moſt fluid parts may not be diſſipated, and the matter that remains become viſcid, tenacious, and inextricable; hence thoſe things, that are hot and ſtimulating, are injurious: the paſſages too muſt be opened, deterged, and lubricated, and the matter ſtimulated to excretion, which is beſt done by coughing; to which a ſtimulus, and ſufficient ſtrength, are required; and laſtly the ſtuffed veſſels muſt be at reſt, in order to relaxation; for, if they were continually irritated, the moiſture would be thrown out perpetually from the glands of the aſpera arteria, with a ſenſe of pain. Medicines, which perform theſe intentions, are generally called *expectorants*; the matter is rendered moveable by all ſtimulators that are aromatic, bitter, oily, and mild; as wormwood, hyſſop, marjoram, elecampane, penny-royal, valerian, *&c.* all fixed ſaponacious bodies, as venice ſoap, all oily volatile ſoaps, and volatile ſalts; and, in general, all that ſtimulate and dilute at the ſame time. The paſſages are opened by aperients and detergents, as oil of almonds, oil of palma chriſti, *&c.* alſo honey, which cuts, opens, attenuates, lubricates, and deterges: hereto belong emulſions, ſoaps, yolks of eggs, with oil and ſugar; alſo manna, balſam of turpentine, and balſam of Peru; which act by an aromatic ſtimulus, and lubricating oil; alſo all relaxing and emollient decoctions. And, *laſtly*, the veſſels are relaxed by demulcents, anodynes and narcotics, of which the chief is opium; for when the aſpera arteria is once excoriated, it is eaſily moved into a violent cough and ſpaſms, unleſs reſtrained by opium.

SIMPLICIA.

FOLIA.

ABROTANUM. *Southern-wood.*

Has a ſtrong, not very diſagreeable ſmell; a nauſeous pungent taſte; which is totally extracted by rectified ſpirit, and leſs perfectly by water; is ſtimulating, detergent, and ſudorific; good in cold leucophlegmatic habits; is recommended in ſuppreſſion of urine; in chronical deſtempers of the female ſex; kills worms,

worms, and removes hyſterical flatuſes. It is now chiefly confined to external uſe in diſcutient and antiſeptic fomentations; and in lotions and unguents for cutaneous eruptions, and the falling off of the hair.

Lujula. *Wood-Sorrel.*

Differs little from *acetoſa*, but is conſiderably more grateful; boiled in milk, it forms an agreeable whey, and beat with ſugar an elegant conſerve; is gently deterſive; aſſuages heat in choleric conſtitutions; is ſomewhat diuretic; and good in obſtructions of the viſcera, ſchirrous tumours, and in ſcorbutic caſes.

Conſerva Foliorum Lujuli, *Conſerve Leaves of Wood-Sorrel*, is kept in the ſhops, and proves an elegant and grateful medicine; in taſte it is highly aciduous, with a peculiar flavour, which ſome reſemble to that of green tea; is taken occaſionally for quenching thirſt, cooling the mouth and fauces in hot diſtempers: it may be uſefully joined to the conſerve of ſcurvy-graſs; whoſe virtues it ſomewhat promotes, and, at the ſame, improves its taſte.

Agrimonia. *Agrimony.*

Has an herbaceous, acrid, rough taſte, and aromatic flavour; is aperient, detergent, and ſtrengthens the tone of the viſcera; ſtops fluxes; therefore proves good in ſcorbutic caſes; and in laxity and debility of the inteſtines; digeſted in whey, proves an excellent diet drink. Some preſcribe it in dropſies and cachexies; it is uſed externally in ſwellings, and inflammations of the ſcrotum; and in diſcutient and vulnerary fomentations to diſlodge hard tumours, diſſipate œdematus ſwellings, and abſorb ſuperfluous humidities.

Alchimilla. *Lady's Mantle.*

Has a rough glutinous taſte; good in laxity of the ſolids, and in an acrimonious ſtate of the fluids; is aſtringent, thickens the blood, and thereby ſtops hæmorrhages, and other fluxes, and female weakneſſes.

Chamæpitys. *Ground Pine.*

Has a bitter, rough taſte, and ſtrong, aromatic, reſinous ſmell; is aperient and vulnerary; good in gout and rheumatiſm; cleanſes the joints of the Chalky indurations, which cauſe ſwellings and vehement pains; it opens obſtructions, and cleanſes abſceſſes.

CHELIDONIUM. *Salandine.* D. ʒs to ʒi of the dried root, or ℥i of the freſh root.

The leaves and root have a gold-coloured juice; a diſagreeable ſmell; a bitter, very acrid, biting, and burning taſte: the root is moſt acrid; is ſtimulating, aperient, diuretic, and ſudorific; good in the ſlow jaundice, where there is no inflammation; and in dropſies, and other obſtructions of the viſcera. The juice is ſaid to be good to take films off the eyes; to extirpate warts; cleanſe old ulcers; and in cataplaſms for the harpes miliaris; but is rather too acrid for internal uſe, if not properly diluted.

HEDERA TERRESTRIS. *Ground Ivy.*

Has an aromatic diſagreeable ſmell; quick, bitter, warm taſte; is a good corroborant, aperient, and detergent; uſeful againſt laxity, debility, and obſtructions of the viſcera; cleanſes and heals ulcers of the internal parts, eſpecially of the lungs; and purifies the blood; a ſtrong decoction of it, after an emetic, proves ſerviceable in ſcorbutic conſumptions. There was formerly kept in the ſhops an empyreumatic oil, diſtilled from ivy; and was ſometimes uſed in embrocations againſt rheumatic pains.

HYPERICUM. *St. John's Wort.*

Has a rough bitter taſte, and diſagreeable ſmell; is corroborant, diuretic, vulnerary, and detergent; good againſt the ſtone, and in obſtructions of the urinary paſſages; kills worms; and is externally uſed in diſcutient fomentations; and is particularly uſeful in melancholy, hyſterical, and maniacal caſes: the tops communicate a blood-red colour to rectified ſpirit; and tinge expreſt oils of a red colour.

MERRUBIUM. *Hore-hound.*

Has a ſtrong ſmell, and a rough bitter taſte; is a ſtrong bitter; good in humoural aſthmas, coughs, and yellow jaundice, proceeding from a viſcidity of the bile, and in other chronical diſorders; is powerfully aperient and detergent; promotes the fluid ſecretions; and, if liberally taken, looſens the belly: is uſed alſo in ſpitting of blood.

MELILOTUS. *Melilot.*

Has a rough, bitter, and ſomewhat nauſeous taſte; and little ſmell when green: a decoction of it has been uſed in inflammations of the abdomen; and alſo in the *fluor albus*; and in emollient and carminative glyſters; in fomentations, cataplaſms, and plaſters: it communicates a green colour; and gives name to one of the official plaſters.

PINUS SYLVESTRIS. *Pine of Fir-tree.*

The tops are detergent, vulnerary, and diuretic; the nuts are moſt in uſe, and prove emollient, agglutinating, and very nutritive; good in conſumptions, and inward waſtings; are conveniently given in emulſions, as almonds and other nuts; are alſo recommended in ſtranguries, heat of urine, and ulcerations of the kidneys.

POLLIUM MONTANUM. *Polley Mountain.*

Has a light aromatic ſmell, and bitter taſte; the beſt is brought from Crete; is deterſive; and was formerly uſed in catarrhs and uterine diſorders; but it is now rarely preſcribed, and ſeldom uſed, but in the theriaca.

VISCUS QUERNUS. *Miſletoe.*

Is viſcid and aſtringent; good in virtigos, epilepſies, apoplexies, palſies, and in all convulſions.

GUMMI, &c.

JUNIPERUS. *Juniper.*

The berries, wood, and reſin, (improperly called *gum*) are uſed in phyſic; the berries are uſeful carminatives and ſtomachics; good in debility of the ſtomach and inteſtines, eſpecially in old people; good diuretics, in deficiency of urine, dropſies, and diarrhæas, and in venereal ulcers: they deterge the viſcera; and are therefore good in the jaundice, and in cachexies.

TEREBINTHINÆ. *Turpentines.* D. ℈ı to ʒıſs.

There are four kinds of turpentine in the ſhops, the *Chian*, or *Cyprus*, *Venice*, *Straſburgh*, and *common*. The firſt is generally about the conſiſtence of honey, very

very tenacious, clear, and almoſt tranſparent, of a white colour, with a caſt of yellow, and frequently of blue; has a warm pungent taſte, and fragrant ſmell; is the juice of the evergreen tree growing in warmer countries; it is uſed in the eaſtern countries as a maſticatory; faſtens and whitens the teeth, ſweetens the breath, and promotes appetite.

The Venice is thinner than the other ſorts, of a clear white, or pale yellow colour; has a hot, pungent, bitter, diſagreeable taſte, and ſtrong ſmell, without any fine aromatic flavour; it is obtained from a large tree growing upon the Alps and Pyrenean mountains; the finer kind differs little from the Cyprus in its medicinal virtues. The Straſburgh is of a middle conſiſtence, between the two former, more tranſparent and leſs tenacious than either; has a yellow brown colour, a very fragrant, and leſs diſagreeable ſmell than any of the reſt, except the Chian, has the bittereſt and leaſt acrid taſte, and is obtained from the fir trees growing in Germany, *&c.* The common turpentine is the courſeſt and heavieſt, and in taſte and ſmell the moſt diſagreeable of all the reſt; of the conſiſtence of honey, and of an opake browniſh white colour: it is obtained from the wild pine, common in different parts of Europe. They all yield, in diſtillation with water, an highly penetrating oil. They promote urine, and cleanſe the urinary paſſages, deterge internal ulcers, and, like all other bitter ſubſtances, ſtrengthen the tone of the viſcera, and generally looſen the belly; good in gleets, *fluor albus*, and in all calcalous complaints, either from ſand, or gravel, formed into a maſs by viſcid mucous matter; they diſſolve the mucus, and alſo expel the ſand; where there is a calculus formed they irritate and inflame without doing any good. Turpentine ſhould never be given in any caſe where there is an inflammation. The oil is a powerful, ſtimulating, detergent diuretic; ſometimes it greatly heats, and therefore requires great caution in its exhibition; the common turpentine is the moſt offenſive, and is rarely exhibited internally; the Venice is accounted the moſt powerful diuretic, and detergent; the Chian and Straſburgh are recommended as corroborants; they all raiſe the pulſe, and quicken the circulation.

Aqua Picis Liquidæ, *Tar Water*, is made by pouring a gallon of cold water to a quart of tar, ſtirring them for five or ſix minutes together, and after forty eight hours, is decanted for uſe: it is an excellent cordial in lowneſſes, good ſtomachic, diuretic, and diaphoretic: it is is undoubtedly able to produce favourable changes in the conſtitutions of thoſe that are not accuſtomed

to it; in ſcorbutic habits it throws out a copious eruption upon the ſkin, and thereby relieves from other ſymptoms which attended the retention of the humour; and in ſome caſes it will remove eruptions. It has been obſerved likewiſe to produce regular fits of the gout in thoſe, who before had only ſlight moving pains. In nervous caſes ſeveral perſons have received benefit from it, for ſome time; but it ought not to be continued too long, leſt the conſtitution become habituated to it. In general, tar-water is a ſtimulating medicine; and where a temporary increaſe of the *vis vitæ* is wanting, in order to any critical diſcharge, it produces the deſired effect; but where ſuch a diſcharge is not proper in that period of the diſtemper, it operates only palliatively. The tar imparts to the water a ſlight acid of a ſaline nature, and an æthereal oil; in which oil its medicinal virtues moſtly conſiſt. The nature of its operation is to quicken and fill the pulſe by increaſing the *vis vitæ*. The doſe of tar-water is from half a pint to three or four at different times of the day, a little before meat. The learned biſhop, the father of tar-water, ſays, there is no danger in exceeding in quantity. Turpentine, in ſubſtance, may be given in boluſſes, or diſſolved in watery liquors, by the mediation of the yolk of an egg.

Sambucus. *Elder.*

The inner green bark of the trunk is generally cathartic; an infuſion of it made, or the expreſs'd juice in a doſe of ℥ſs or ℥i, purges moderately; and in ſmall doſes proves an effectual deobſtruent, capable of promoting all the fluid ſecretions. The young buds are ſtrongly purgative; the flowers have an agreeable aromatic flavour, which they give over in diſtillation with water, or by infuſion with ſpirit of wine. The berries have a ſweet unpleaſant taſte; the expreſt juice, inſpiſſated to the conſiſtence of a rob, which is directed by the College to be kept in the ſhops, is a uſeful aperient, opens obſtructions of the viſcera, promotes the natural evacuations, and, if continued for any time, does great ſervice in ſundry chronical diſorders, as cachexies, dropſies, conſumptions, &c. There is a ſpirit drawn from the fermented berries by the alembic, which is ſaid to poſſeſs the virtues of the elder, and is given from ℥ſs. It tinges vinous ſpirits of a deep red. There is a fungus ſometimes found upon the tree, when old, called *Auricula Judæ*, *Jews Ear*, the internal uſe of which is accounted dangerous. The green leaves of elder are uſed to make an oil, and an ointment; are alſo uſed in cataplaſms, to be applied hot to an eryſipelas, and other inflammatory tumours. Some diſtil a water from elder flowers, which ſmells conſiderably of the flowers.

Sperma-

SPERMA-CETI. D. ℈1 to ʒ1.

Is a white ſoft ſubſtance, a mild emollient, eaſes pains and eroſions of the inteſtines, good in coughs from ſharp defluxions, and in all caſes where the ſolids require to be relaxed, and acrimonious humours ſoftened; good in inward bruiſes and hurts after delivery, in all diſtempers of the breaſt, eroſions and ulcerations, in diarrhæas and dyſenteries from acrimony or choler, in ulcerations of the kidnies, and in bloody urine. It is uſed externally with the oil of almonds for preventing ſcars in the ſmall pox; it unites with aqueous liquors in the form of an emulſion, by the mediation of almonds, or the yolk of an egg, and imperfectly with ſugar. Theſe emulſions may be given in inflammatory caſes, when oils cannot be ventured upon.

PRÆPARATA.

OLEA.

L. E. OLEUM TEREBINTHINÆ. *Oil of Turpentine.* D. gut.2 to 11.

Is ſtrictly an eſſential oil, and diſtilled in the ſame manner as the other eſſential oils. It is commonly, though very improperly, called *the Spirit of Turpentine*; is very hot and ſtimulating, and is ſometimes exhibited as a ſudorific, and diuretic; in large doſes it is apt greatly to heat the body, occaſion an headach, *&c.* It has however been ſucceſsfully given of late in conſiderable doſes along with honey, and other convenient vehicles, againſt the ſciatica; is often uſed externally againſt rheumatic pains, aches and ſprains, and for diſcuſſing cold tumours, and reſtraining hæmorrhages. After the diſtillation of the turpentine, there remains in the ſtill a brittle reſinous ſubſtance, of a yellow colour, called *Reſina Flava, Yellow Reſin.*

E. OLEUM BACCARUM JUNIPERI STILLATITIUM. *Eſſential Oil of Juniper Berries.* D. gut.5 to 10.

Is a very warm and pungent oil; has a ſtrong flavour like that of the berries; is a good carminative, and ſtomachic, in a doſe of gut.1 or 2; given in larger doſes, as gut.6 or 8, it is ſtimulating, detergent, diuretic, and emmenagogue; communicates a violet ſmell to the urine, which ſhews it to be of the nature

of

of the turpentines. It is alſo given in cholics, and in pains from the ſtone and gravel; in ſuch caſes, it frequently does great good; for it forcibly ſcours and deterges the urinary paſſages.

AQUÆ, &c.

L. E. AQUA CALCIS SIMPLEX. *Simple Lime Water.* D. ℥4 to ℔1.

Is made of ℔1 of quick lime, with ℔12 m. of water ſlowly poured upon it; when the ebullution is over, and the whole ſettled, the liquor is filtrated for uſe. This water is of great ſervice in ſcorbutic and ſcrophulous caſes, in ſome kinds of alvine fluxes, female weakneſſes, and in other diſorders proceeding from a laxity and debility of the ſolids, particularly in corpulent and phlegmatic habits; it is ſaid to have cured red-pimpled faces, ſtrumas, dyſenteries, and rheumatic pains, and diabetes: it is certainly a powerful drier, and does great good in cold weak ſtomachs, apt to breed phlegm, as it cuts and attenuates phlegm, ſtrengthens the coats and fibres of the ſtomach, promotes appetite, and prevents crudities.

E. AQUA CALCIS COMPOSITA. *Compound Lime Water.*

Is made of the roots and bark of ſaſſafras ℥2, nutmegs ℈3, liquorice ſliced ℈1, digeſted for two days in a cloſe veſſel, with ℔4 of freſh-made lime water, and then ſtrained off for uſe.

L. AQUA CALCIS MINUS COMPOSITA. *Lime Water leſs compounded.*

Is made of liquorice ℈1, ſaſſafras bark ℈ſs, macerated without heat for two days with ℔6 m. of ſimple lime water, and then ſtrained off.

L. AQUA CALCIS MAGIS COMPOSITA. *Lime Water more compounded.*

Is made of guaiacum wood ſhaved ℔ſs, liquorice ℈1, ſaſſafras bark ℈ſs, cardamom ſeeds ℥3, macerated for two days without heat with ℔6 of ſimple lime water and then ſtrained for uſe. This laſt ſometimes goes under the name of *aqua liberans*: in all theſe compoſitions the additional articles take off the ill flavour of the lime water, and render it more grateful both to the palate and ſtomach; and, at the ſame time, conſiderably promote its medicinal efficacy, eſpecially

eſpecially when intended againſt cutaneous diſorders, and foulneſs of the blood and juices. The compound waters may be drunk in the ſame quantity as the ſimple water, keeping moderately warm at the ſame time: they are antiſeptics and correct acidities, and concretions, which occaſion many chronical diſorders.

L. E. Aqua Raphani Composita. *Compound Horſe Radiſh Water.*

Is obtained of ſcurvy-graſs leaves freſh ℔ 4, horſe-radiſh root freſh, orange-peel freſh āā ℔ 2, nutmegs ℥ 9, proof ſpirit two gallons, with as much water as will prevent an empyreuma, and two gallons diſtilled. The Edinburgh College directs this water to be obtained, by diſtillation, of freſh horſe-radiſh root, and freſh leaves of ſcurvy-graſs āā ℔ 3, the outer rind of freſh oranges, juniper-berries, canella alba āā ℥ 4, French brandy three gallons; the juniper-berries and canella alba are macerated for two days in the ſpirit before diſtillation. Both theſe waters are as elegant as they are well adapted for the purpoſes of an anti-ſcorbutic; all the ingredients are of a ſubtile penetrating nature, and greatly abound with volatile ſalts, which, in thoſe who have groſs and ſizy blood, do great ſervice, by dividing and rendering it more fluid; which increaſe the diſcharge by the kidneys, which are thereby free'd from any obſtructions: they are good in all obſtructions of the viſcera, as in the jaundice, cachexies, dropſies, and in ſcurvies; they open the obſtructions in the minute paſſages, promote perſpiration, and cleanſe the ſkin, *&c.* There are many antiſcorbutic waters taken notice of by diſpenſatory writers; but the College has not thought any of them worthy their notice, but the horſe-radiſh water.

E. Decoctum ad Ictericos. *Decoction for the Jaundice.* D. ℥ 4.

Is made of Celandine root with the leaves, Turmeric root, madder root āā ℥ 1, boiled in ℔ 3 of water to ℔ 2; and, to the ſtrained decoction, is added the juice of two hundred wood-lice. This decoction is very unpleaſant; though well calculated to anſwer many uſeful purpoſes, if well managed, and properly aſſiſted; it may be taken twice a day, or oftener.

E. Decoctum Lignorum. *Decoction of the Wood.* D. ℥ 4.

Is made of guaiacum ſhavings ℥ 3, raiſins of the ſun ſtoned ℥ 4, common water ℔ 8, boiled over a gentle fire to ℔ 4; towards the end are added, of ſaffron

wood

wood ſhaved ℥1, liquorice ſliced ℥ſs; the liquor, being ſtrained, is decanted for uſe. This decoction, if duly continued, will do great ſervice in ſcorbutic and cutaneous diſeaſes, foulneſs of the blood and juices, and in ſome diſorders of the breaſt, particularly in cold phlegmatic habits. It may be uſed as an aſſiſtant in a courſe of antimonial or mercurial alteratives: the patient ought to keep moderately warm to promote its operation; it may be taken two or three times a day.

L. Serum Scorbuticum. *Scorbutic Whey.*

Is made of ſcorbutic juice ℥4, boiled in ℔ 1 of of cow's milk till it is curded, then the whey is carefully ſeparated. This is uſed as a common drink in ſcorbutic caſes; the quantity here preſcribed ought to be taken in a day.

L. Succi Scorbutici. *Scorbutic Juices.* D. ℥1 to 6.

Is made of the juice of garden ſcurvy-graſs ℔ 2 m. juice of brook-lime, and water-creſſes āā ℔ 1 m. the juice of Seville oranges ℥20 m. mixed all together, and ſtrained. This medicine is of conſiderable uſe for the purpoſes expreſſed in the title. Theſe juices may be taken from ℥3 to 6, or as much as the ſtomach can bear, twice or thrice a day; they generally increaſe the urinary ſecretions, and ſometimes bring on a laxity.

E. Spiritus Cochleariæ. *Spirit of Scurvy-Graſs.* D. gut. 20 to 100.

Is obtained, by diſtillation, of freſh gathered ſcurvy-graſs bruiſed ℔ 10, macerated for twelve hours, with ℔ 5 of rectified ſpirit of wine, and ℔ 5 diſtilled in B. A. The virtues of the ſcurvy-graſs recede in a very ſubtile volatile oil; which ariſes, in diſtillation, both with water and pure ſpirit; therefore the ſpirit of ſcurvy-graſs is ſucceſsfully given in thoſe caſes where the uſe of this herb is proper: ſome add to the ſcurvy-graſs a ſmall quantity of horſe-radiſh root.

Spiritus Cochleariæ aureus, Golden or purging Spirit of Scurvy-Graſs, is made by diſſolving ℥1 of gamboge, in ℔ 1 of ſpirit of ſcurvy-graſs, then the ſpirit is carefully decanted from the ſediment; in making this ſpirit, you may uſe ſcammony, or reſin of jalap, in place of gamboge. The golden ſpirit of ſcurvy-graſs formerly was in great eſteem, and is ſo ſtill, amongſt the common people, in all kinds of ſcorbutic diſorders; nevertheleſs it is a very indifferent medicine. It may be taken upon ſugar, or with any ſyrup, in doſes from gut. 20 to 50.

E. Oxymel

E. Oxymel Pectorale. *Pectoral Oxymel.* D. ℥1 to 2.

Is made of elecampane root, florentine orris root ℥1ſs, cut, bruiſed, and boiled in ℔3 to ℔2, to the ſtrained liquor ℔1 of clarified honey, and ℥1 of gum ammoniacum, diſſolved in ℔ſs of vinegar, are added; and the whole is boiled a little. This is deſigned for thoſe diſorders of the breaſt that proceed from a load of viſcid phlem, which it attenuates, and promotes the expectoration of it; and opens the obſtructions of the pulmonary veſſels. It ſhould be taken in the morning, and at night, and continued for ſome time. Some prepare this oxymel of elecampane root, aſarum, ginger āā ℥4, orris, galangal, and white pepper bruiſed āā ℥3, water ℔10, white wine vinegar ℔6, digeſted 24 hours; to the ſtrained liquor are added ℔ſs of the juice of liquorice, and ℔6 of honey, and then boiled to a due conſiſtence This is a very good pectoral, and a ſpoonful or two may be taken at diſcretion.

L. E. Oxymel Simplex. *Simple Oxymel.*

Is made of clarified honey ℔2 p. vinegar ℔1 m. boiled in a glazed earthen veſſel over a gentle fire, to the conſiſtence of a ſyrup. This is an agreeable, mild, cooling, ſaponaceous, deterging and attenuating medicine; is often uſed in cooling and deterging gargariſms, and not unfrequently as an expectorant.

L. Syrupus ex Allio. *Syrup of Garlic.*

Is made of garlic ſliced ℔1 p. macerated in a cloſe veſſel for 12 hours with ℔2 m. of boiling water; to the ſtrained liquor a ſufficient quantity of ſugar is added to make it a ſyrup. This ſyrup attenuates viſcid phlegm, and promotes expectoration in humoural aſthmas, and oppreſſion of the breaſt; it taſtes and ſmells ſtrongly of the garlic.

L. Oxymel ex Allio. *Oxymel of Garlick.*

Is made of caraway and ſweet fennel-ſeeds āā ℥2, bruiſed and boiled for a ſhort time with ℔ſs of vinegar, in a glazed veſſel, then ℥iſs of garlic bruiſed is added, and the veſſel is covered up; when cold, ℥10 p. of clarified honey are diſſolved in it by means of a gentle heat. This oxymel is a medicine of conſiderable efficacy for attenuating viſcid juices, promoting expectoration, and all the fluid ſecretions in general; but is very unpalatable, and a very ſmall quan-

tity of it gives the taſte and ſmell of garlic to a large quantity of any other medicine.

E. Pilulæ Pectorales. *Pectoral Pills.* D. gr. 10 to ʒ2.

Is made of gum ammoniac ℥ſs, balſam of Tolu 32, flowers of benzoin, Engliſh ſaffron āā 31, with a ſufficient quantity of common ſyrup. This is a very well contrived compoſition for promoting expectoration, and may be ſucceſsfully given in colds, difficulty of breathing, proceeding from viſcid phlegm; they ſtimulate and deterge the pulmonary veſſels, and attenuate and diſſolve thick tenacious juices.

E. Lohoch de Spermate Ceti. *Lohoch of Sperma-ceti.*

Is made of ſperma-ceti diſſolved in the yolk of an egg 32, oil of almonds ℥ſs, balſamic ſyrup ℥1. Or, ſperma-ceti 32, balſam of Peru gut.40, well worked up with a ſufficient quantity of the yolks of eggs, and then mixed with ℥2 of ſyrup of marſhmallows. Theſe lohochs are principally uſed in diſorders of the internal parts of the fauces and œſophagus, larynx, trachea and bronchia. They are good pectorals, and at the ſame time tend to reſtrain immoderate fluxes, by ſomewhat ſtrengthening the bowels, and defending them from the irritation of acrimonious humours.

FORMULÆ EXTEMPORANEÆ.

℞ Tinct. Rhei ℥iſs, ol. amygdalin. ℥ſs, ſyr. e mecon. 32, tinct. thebaic. gut. 15 m.

℞ Acet. ſcillitic. 31, aqu. font. ℥2 — juniper. comp. ℥ſs, ſyr. ex alth. 33 m.

℞ Gum. ammon. (in acet. ſcillit. ſolut.) 32, oxym. ſimpl. ℥1, aq. menth. vulg. ſimpl. ℥6, f. mixtura doſ. coch. 2.

℞ Lac. ammon. ℥3, aq. fontan. ℥2, oxymel. ſimpl. 34 m.

℞ Rad. enul. campan. alii conciſ. āā ℥1, rad. glycyrrhiz. 33, ſem. aniſ. — carui āā ℥ſs, infunde in aq. fluvial. ℔6 & cola; cui adde lac. ammon. ℥6 m.

℞ Oxymel. ſcillit ℥ſs, aq. menth. vulg. ſimpl. ℥iſs ſperm. cet. (in ov. vitell. ſolut.) ʒ1, f. hauſt.

℞ Fol.

℞ Fol. cochlear. hortenſ. naſturt. aquat. bacabung. āā manip. 3, ciner. geniſt. ℔ 1, rad. raphan. ruſt ſem. ſinap. contuſ. āā ℥1, baccar. junip. ℥2. limatur. mart. (ſacculo incluſæ) ℔ 2, rad. ſcillit. recent. ʒ3, infunde in cereviſ. veter. fort. cong. 3, per quatriduum deinde cola.

℞ Tartar. emet. gr. 10, oxym. ſcillit. ℥1, aq. menth. vul. ſimpl. ℥6 — ſpt ℥2, f. mixtura.

℞ Sapon. tenuiter inciſ. ℈1, lac. vac. ℥4, coq. deinde adde aq. raphan. comp. ℥2, — Junip. comp. ℥3, ſacchar. alb. ℥iſs m.

℞ Lac. ammon. ℥4, ſyr ſcillit. ℥3, aq. menth. piper. ſpt. ℥2 M.

℞ Aq. fœnicul. ℥3 — raphan. comp. — piper. ſpt. āā ℥1, ſyr. ſcillitic. ℥3 m.

℞ Oxymel. ſcillitic. ʒiſs, tinct. thebaic. gut. 15, aq. cinnam. ſpt. ʒ2 — commun. ℥3 m.

℞ Balſ. copaib. ʒ2, ol. terebinth. gut. 15, aq. fœnicul. ℥4 — raphan. comp. ſyr. ex alth. āā ℥2 m.

℞ Cochlear. hort. manip. 1, rad. raphan ʒ4, pulv. cort. winter. ʒ2, pulv. ari ʒ3, vin. alb. ℔ 2, infunde frigide per tres dies & cola.

℞ Decoct. pectoral. ℔ 1, mel. roſac. oxym. ex allio āā ℥2, aq. menth piper. ſpt. ʒiſs, infuſ. croc. metall. ℥ſs m.

℞ Conſerv. fol. cochlear. hort. ℥3, rad. enul. campan. ʒ4, ſal. abſinth ℈iſs, ſyr. e flor. paralyſ. q. ſ. f. elect.

℞ Sem. petroſelin. — fœnicul. āā ℥2, fol. alth. manip. coq. ad conſiſten. extr. cui adde conſerv. fol. cochlear. hort. ℥1, pulv. milleped. ʒ2, ſal. ſuccin. croc. āā ℈iſs, ſyr. ex alth. f. E.

℞ Scill. coct. ℥1, pulv. rad. alth. ʒ2 — cinnam. ʒ1, ſal. prunel. croci āā ℈iſs, conſerv. fol. cochlear. hort. ℥1, ſyr. ex alth. q. ſ. f. elect.

℞ Gum. ammon. ſapon. dur. āā ʒ1, ſcill. pulv. ℈1, conſerv. flav. cort. aurant. ʒ4, ſyr. zingib. m. f. elect.

℞ Elect. lenitiv. ℔ ſs balſ. copaib. ℥3, rhabarb. gum. ammon. nitri āā ℥2, ſyr. ſyr. e cort aurant q. ſ. f. elect.

℞ Sap. dur. ʒiſs parier. brav. ℥1, rhabarbar. aloes ſocotor. āā ʒ2, ſyr. e cort. aurant. q. ſ. elect.

℞ Sal. ammon. ſap. dur. āā ʒi, mel. ℥iſs, f. elect.

℞ Oxym. ſcillit. ℥i, ſal. tartar. ʒi, fol. malv. ℥iij, ſyr. ex alth. q. ſ. f. elect.

℞ Rob. baccar. ſambuc. ℥ii, ſal. C. C. ʒi, f. elect.

℞ Scill. rec. gum. ammon. ſapon. dur. āā p. æ. f. pil. doſ. ℈i.

℞ Gum. ammon. ſap. dur. āā ʒi, ol. junip. gut. 15, f. pil. doſ. ʒſs.

℞ Extr. thebaic. gut.4, tinct. guaiac. volat. ℥iv, vin. antimon. ʒii, aq. raphan. comp. ℥iij m.

℞ Scill. recent. gum. ammon. āā p. æ. pulv. glycyrrhiz. q. ſ. f. pil. doſ. ℈i.

℞ Scill. exſicc. gr.3, ſapon. dur. ℈i, gum. ammon. (in acet. ſcill. ſolut.) q. ſ. f. pil.

℞ Allii ſapon. dur. āā ʒi, milleped. præp. ʒſs, ſyr. balſ. q. ſ. f. pil.

℞ Aloes ſocotor. ſap. dur. āā p. æ. mel. q. ſ. f. pil.

℞ Gum. ammon. ℥iſs, myrrh. ℥i, balſam. ſulphur. barbadenſ. ʒi, ſyr. ex alth. q. ſ. f. pil. D. 4, bis in die.

℞ Scill. gum. ammon. ſem. cardam. āā p. æ. m. f. pil. D. 2, ter in die.

℞ Aloes ℥i, gum. ammon. myrrh. āā ʒi, tartar. vitriol. ʒi, ol. menth. vulg. eſſ. ℈i, ſyr. ſimpl. q. ſ. f. pilulæ D. 6, bis in die.

℞ Sapon. dur. ʒi, gum. ammon. ʒſs, ſcill. coct. ℈ii, ſyr. ſimpl. q. ſ. f. pil.

℞ Styrac. colat. ℈ii, flor. ſulphur. — benzoin. āā ℈i, ſyr. balſam. q. ſ. f. pil.

℞ Aloes hepatic. croc. āā ℈ii, extr. thebaic. gr. 6, balſam. peruvian. q. ſ. p. pil.

℞ Sapon. ven. ʒii, ol. ſem. aniſ. gut.8, m. f. pil.

℞ Sapon. ven. ʒii, ſcill. ʒſs, croc. ℈i, m. f. pil.

℞ Sapon. dur. ʒii, croc. ſal. mart. — ſuccin. āā ℈i, ol. e bacc. junip. gut.10, m. f. pil. D. 5, bis vel ter in die.

℞ Succ. alii ʒii, gum. ammoniac. ʒi, croc. ℈i, milleped. præp. gr. 10, ol. ſem. aniſ. gut.4, pulv. enul. campan. q. ſ. f. pil.

℞ Gum. guaiac. aloes ſocotor. āā ʒſs, balſ. peruvian. q. ſ. f. pil.

℞ Extr.

℞ Extr. glycyrrhiz. ℈iſs, flor. benzoin. ℈2, ol. e ſem. aniſ. gut.4, balſam. peruvian. q. ſ. f. pil.

℞ Gum. ammon. aloes ſocotor. āā ʒſs, chalyb. cum ſulphur. præp. ʒ1, ol. ex ſem. aniſ. gut.6, tinct. mart. in ſpt. ſal. q. ſ. f. f. p.

℞ Gum. ammon. ℈1, myrrh. croc. caſtor. āā ℈ſs, ſal. mart. ℈ſs, ol. e nuc. moſchat. gut.5, elix. paregor. q. ſ. f. p.

℞ Sagapen. ℥iſs, rad. valer. ſylv. pul. ℥2ſs, ſapon. caſtil. ʒ2, elix. aloes q. ſ. m.

℞ Sapon. caſtil. ℥1, gum. guaiac. ʒſs, ſyr. balſam. q. ſ. f. pil.

℞ Pulp. ſcill. recent. ℈1, rad glycyrrhiz. ℈2, ſyr. balſam. q. f. pil.

℞ Styrac. balſ. copaib. āā ℈1, ambr. griſ. gr. 15, moſch. 7, ol. e rad. ſaſſaf. gut.8, ſacchar. pur. ℥1, gum. arab. q. ſ. ut f. trochiſci.

CHAP.

CHAP. IV.

Of DETERGENTS.

THE medicines, that come under this claſs, conſiſt of very ſubtile and volatile parts, whereby they are fitted to mix with, attenuate, and wear away the contents of abceſſes, ulcerations, and carry off thoſe mucous viſcid collections of humours, which are apt to adhere and obſtruct the veſſels. They open obſtructions of the veſſels, promote a free circulation, alter the vitiated craſis of the blood, and ſlowly and inſenſibly deterge the body of all morbid matter; and recover the juices to a mild, healthy, and ſound ſtate.

Of the SCURVY.

This diſtemper is the moſt violent of all chronical diſorders; it chiefly affects the inhabitants of cold countries. In all ſcurvies the blood is in a diſſolved putrid ſtate; and the patient, without any conſiderable antecedent, ſenſible diſorder, except perhaps a great weakneſs, languor and laſſitude, has, on a ſudden, violet coloured, livid, black and blue ſpots, or *vibices*, over all the body; then the patient falls into fatal hæmorrhages, (though there is no plethora) from the gums, noſe, inteſtines, urinary paſſages, and from the ſlighteſt wound. The blood is a mere gore in a manner; and the craſſamentum and ſerum are hardly ſeparable: it is of a livid-dark colour, and ſometimes florid, and ſoon runs into putrefaction. The breath ſtinks, and the urine ſmells rank; and, as the humours corrupt daily more and more, ſo they become, at length, ſo very acrimonious as to corrode, tear, and deſtroy the veſſels; which is the cauſe of hæmorrhages. Though ſome tender and delicate conſtitutions are ſubject to a hæmoptöë, from a very ſmall accident: but theſe hæmorrhages are ſeldom preceeded, or attended, with livid violet-coloured eruptions, &c. though even theſe hæmorrhages proceed from a bad ſtate of the blood, and very tender and delicate veſſels. Theſe hæmorrhages, and even the floodings of women after miſcarriage, except in the laſt month, are not dangerous, and generally require little more for their cure than patience; for the coagulation of the blood about the mouth of the ruptured veſſel, and the elaſticity of the veſſel itſelf, will ſtop the hæmorrhage. Afterwards come on wandering pains and aches; a ſenſe of weakneſs

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and ſmarting; ſtinking breath; the countenance becomes pale and tawny; the gums are corroded, and turn ſpungy; the breathing is difficult upon the leaſt motion; the legs often ſwell, and the ſwelling ſuddenly diſappears, and they are almoſt immoveable from their great weight; there are wandering pains all over the body, as well internally as externally, imitating almoſt every complaint. The teeth grow looſe, yellow, black, and rotten; obſtinate ſtinking ulcers, chiefly in the legs; ſcabs; cruſts; a dry gentle leproſy; violent gnawing, ſtabbing, piercing pains all over the limbs, joints, bones, and bowels, which generally increaſe in the night; fevers of all ſorts; looſeneſs; ſtranguries; bloody fluxes; faintings; anguiſhes; dropſies; conſumption; convulſions; tremblings; palſy; contractions of the ſinews; vomiting; and voiding of large quantities of the blood by ſtool; gangrenes; and putrefaction of the liver, ſpleen, pancreas, menſentery, &c. are ſymptoms of the ſcurvy.

In the cure of a ſcurvy, if it is pretty much confirmed upon the conſtitution, it is abſolutely neceſſary to confine the patient to a milk and vegetable diet, with rice, panado, ſago, jellies well acidulated; he ſhould drink often of whey, mixed with the juice of ſcurvy-graſs, water-creſſes, ſaſſafras, guaiacum, and juniper berries; lime-water too is found of great ſervice. If the pulſe is full and hard, the cooling antiſcorbutics, with gentle evacuations and bleeding, take place. But when the pulſe is weak, ſmall, and unequal, then we ſhould omit bleeding, and make uſe of hot antiſcorbutics. As the ſcurvy ariſes originally either from an hereditary taint, or from a natural imperfection of the ſolids; the cutaneous abſorbents have their mouths too much dilated, conſequently receive too large and noxious particles, which obſtruct them; the obſtructed matter ſoon putrifies, that is, becomes ſeptic, acrid, and thin; and is conveyed in this more fluid ſtate, which it has acquired by putrefaction, into the blood by the ſame abſorbent veſſels, which are a ſpecies of lymphatics. When this morbid matter is once conveyed into the blood, and intimately mixed with it by circulation, then it acts as a ſeptic ferment, and corrupts the whole maſs of fluids; and, after ſome time, we may conſider the whole body as in an advanced ſtate of putrefaction: this putrid diſeaſe, which is either ſcorbutic, ſchrophulous, leprous, or eviliſh, for they are all different degrees of one and the ſame diſeaſe, is cured with more difficulty than other putrid diſeaſes, becauſe the original frame of the conſtitution is conſtantly promoting the diſeaſe; and is perpetually ſending in freſh matter to ſupport it: therefore the moſt rational and effectual way to cure this loathſome diſeaſe, is to promote a full, regular, and free perſpiration, which is always interrupted;

ted; for the more dilated the orifices of the cutaneous, abſorbent lymphatics are, the more compreſſed muſt the cutaneous exhaling arteries be; therefore we are inſtantly to give gentle diaphoretics, and continue them through the whole courſe, which will not only evacuate the morbid matter, in a natural, eaſy, and imperceptible manner, but it will likewiſe contract the orifices of the abſorbents, and cut at the root of the diſeaſe; if the patient's conſtitution will bear it, we may give gentle antimonial emetics.

As we have ſeen the original cauſe of all ſcurvies, to proceed from an imperfection in the ſolids, we naturally turn our eyes for relief to bathing; and indeed either ſea-bathing, or the common cold-bath, is of admirable uſe, and will aſſiſt with other internal medicines in obtaining a perfect cure: indeed I cannot help thinking that aſtringent lotions might do good in ſcurvies, *&c.*

The next thing we have to do is to ſtrengthen the ſolids, promote and regulate digeſtion, and encourage a free circulation of the fluids, and correct their acrimony by the uſe of alteratives. This intention is moſt effectually obtained by the uſe of the bark, bitters, ſteel, and ſteel waters, as *Llyndrindod* water, antimony, acids, antiſcorbutics, with bathing, gentle diaphoretics, and mild alteratives. Theſe ſeem to be the medicines, from which moſt is to be expected in the cure of this diſorder. Accordingly, I find, Dr. *Huxam* begins with a doſe of rhubarb, and then follows with the uſe of the bark, in ſmall doſes, with elixir vitrioli: beſides this he gives tincture of roſes, with cinnamon water, made very acid; alſo a decoction of Seville orange rind, red roſes, cinnamon, with a little Japan earth, well acidulated. He allows the uſe of claret and red port with half water. Small doſes of rhubarb, or infuſion of ſena, with emetic tartar, or any cooling ſaline phyſic, as ſymptoms indicate, ought now and then to be interpoſed to carry off the bloody, bilious, and ſanious matter, that may be lodged in the inteſtines. Aſtringent aromatic fomentations, applied to the belly, &c. are uſeful; gentle antimonial emetics ought frequently to be given; the perſpiration ſhould carefully be kept up, by the conſtant uſe of camphor, antimony, and a variety of other medicines which this claſs affords; particular attention ought to be given to the digeſtion, which ought to be promoted by bitters, &c. well acidulated, and made up with ſome ſubacid ſyrup: though the pain is very great, yet we ought not to make uſe of opiates; and abſorbent earths ſhould be rarely preſcribed.

In the muriatic ſcurvy, which is diſtinguiſhed by the uncommon fluidity, and thinneſs of the blood, and, in general, found in old ſailors, and thoſe who live

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on ſmoaked and dried fiſh and fleſh. Whey drunk long, and copiouſly, produces happy effects; the juices of oranges, citrons, and all ripe fruits, greatly contribute to forward the cure: pains of the breaſt, and abdomen, are not to be treated with hot medicines; chicken broth, oil of ſweet almonds, ſperma-ceti, with very gentle purgatives, are very proper.

In the acid ſcurvy, when the blood appears thicker and blacker than uſual, among the whole tribe of deobſtruent medicines, nothing is better than ſteel waters; which, eaſily penetrating the ſmall capillary veſſels, free them from all obſtructions, without leaving any heat or acrimony behind. In this caſe China decoctions, ſtrengthening broth, aſſes and goat's milk, ſhould be frequently taken, and continued for many weeks.

As the ſcurvy is a putrid diſeaſe, ſo all antiſeptics are of great uſe in this diſeaſe: for the ſolid and fluid parts of animals are ſtrongly diſpoſed to run into putrefaction; they putrefy much ſooner than vegetables; and, when corrupted, are more offenſive: for the bodies of living animals, if the juices ſtagnate, or are carried about too ſwiftly, or are prevented, by an obſtruction of the natural emunctories, from throwing off their more volatile and corruptible parts; they produce ſcurvies, and other putrid diſeaſes; for all ſcurvies have their beginning from obſtructions, which occaſion putrefaction; for though the food, from the time that it is received into the mouth, till it is diſcharged by perſpiration, and excreted by the anus, is advancing from an aſceſſant ſtate to a ſtate of putrefaction; yet it is prevented from arriving at that ſtate of putrefaction, in which we ſee putrid fleſh and a ſtinking fluid by throwing in, upon the humours, a freſh ſupply, formed from aliment of an aceſſant kind; but if this ſupply be cut off, or if perſpiration is obſtructed, and the natural emunctories prevented from doing their office; then putrid and detached matter is ſhut up in the body, and prevented from flying off; then the humours ſoon turn into a putrefactive ſtate, which deſtroys the health; and if not timely prevented, will be the death of the patient. A laxity of the ſolids, a plethora, &c. very much haſten this event; for if the veſſels are much diſtended with fluids, they are not able to contract and dilate themſelves ſufficiently to carry on their circulations; which becomes languid, and, as it were, choaked up: the ſeptic ferment, increaſed by putrid myaſma, has a large maſs of matter to act upon, and conſequently a greater quantity of acrimony will be contracted; which will ſo aſſimilate our juices, as to convert the whole body into a putrid maſs, if not timely prevented, by inciding and attenuating the juices, and evacuating the morbid matter

as faſt as poſſible. If there is any obſtruction in the body of long ſtanding, whenever the obſtructed matter is heated, or put in motion, it then putrifies, and becomes acrid and rancid, and ſends ſaline acrid myaſmata, or noxious vapours, into the blood; which produce diverſe alterations in it, according to their quantity and quality; for theſe acrids are mixed with ſulphurs, which are a kind of vehicle to them, and are more or leſs corrupted; according as the matter, whence they are derived, has remained a ſhorter or longer time in the obſtructed part: for there is no putrefaction whatever but ſends off ſome particles, which have a mutual avoidance, and therefore become air.

Put, for example, fruit, bread, or a dead animal, into an exhauſted receiver, and, in a few days, they will fill it again with a vaſt quantity of air; which could not be, if the corrupted effluvia were not turned to air; which is, however, ſo noxious and deadly, that if it is transferred, without mixing with the circumambient air, and thrown upon any place where a bird is confined, it will immediately fall into convulſions, and die; not unlike the manner dogs are deſtroyed, in the Grotta del Canai, in Italy. Again, if a few grains of gun-powder are fired in an air-pump, when the quick-ſilver gage is riſen to the height of the barometer, it immediately ſinks, as if the whole atmoſphere were re-admitted. If two oils that burſt into a flame, when mingled, are put together in an exhauſted receiver, they not only generate air enough to ſink the gage, but to burſt the receiver with incredible noiſe.

Now if the myaſmata, ariſing from putrefaction, are carried into the veſſels only in ſuch a quantity as to rarify the blood, and irritate the ſolids; and if the veſſels are elaſtic and ſtrong, and the fibres tenſe and rigid; when the ſtimulus is applied to them, they will contract with great violence, and the ſolids will act with more force on the contained fluids, a greater attrition, and conſequently a greater heat, will enſue; and all the inflammatory ſymptoms, which we generally obſerve to attend the diſeaſe we call a fever, will appear; which will remain as long as the putrid matter remains in the blood: but if a greater quantity of acrid particles ſhould ariſe out of the obſtructed veſſels, then there happens a kind of coagulation; it is this kind of coagulation which cauſes theſe cold ſhiverings, which are felt before the hot fit begins; for as the heat is derived from the motion of the blood, and animal æther, ſo cold is produced from a ceſſation of their motion. The trembling ſhiverings, which happen at the ſame time, which is ſometimes ſo very great as to make the bed ſhake, are a kind of convulſion; occaſioned by the acrids ſtimulating the internal membranes of the veſſels,

veſſels, which throw them into a mechanical effort, to diſengage themſelves of the impacted matter; for, though their points be in a great meaſure abſorbed by the ramous parts of the blood, yet there is ſtill ſuch a quantity as is ſufficient to fix upon the internal coats, and prick and ſtimulate them. The cold fit continues till the animal æther, by its activity, and the acrimony applied to the ſolids, have rarified and broke the coagulum; which, when reſolved, mixes with the blood, and, being of a putrid nature, cauſes the blood to boil, and ſo a fever enſues; which continues till the blood is free'd from the ſeptic virus.

But you muſt not ſuppoſe that the coagulation, I ſpeak of, is like that of milk, which is too great, and would entirely ſtop the circulation of the blood and animal æther; they never would be able to break through ſo great an obſtacle, and the perſon would fall into convulſions and die. What I underſtand here by a coagulum is, that the blood is made thicker than it was, and has not ſo thick a motion as it had before, which is enough to cauſe ſuch cold fits. Now let us ſee how the fever returns by fits.

The matter, that occaſions the obſtructions, which I have laid down as the fundamental cauſe of fevers, does not begin to ſend forth its vapours or acrimony into the blood, in order to cauſe a fever, until it has got together a certain quantity in the obſtructed veſſels, and then its ſtimulus becomes ſo ſtrong, that the fibres throw themſelves into a mechanical effort to diſengage themſelves of the noxious matter, which is a ſulphureous and ſaline matter combined. This acrid matter irritates and ſtimulates the nerves in proportion to its quantity and quality, which vary according as this or that humour, or veſſel, is obſtructed; which variation occaſions that difference, in the time of the return of the fits, which muſt neceſſarily happen ſo long as the obſtruction laſts.

In a tertian the veſſels, wherein the obſtruction happens, do acquire, in two days, a ſufficient repletion of matter, joined to the obſtructed humours, not yet reſolved, as to occaſion a return of the fit every ſecond day: but becauſe, in a quartan, the humours are more tenacious, heavy, and ſlow, in their circulation; conſequently the fits are more diſtant from each other; and ſo of the reſt. If the fibres are lax, the conſtitution delicate, and the *vis vitæ* ſlow, then the circulation will be languid; the perſpiration obſtructed; the accumulation of the acrimonious putrid matter ſlow; the body habituated to putrefaction; and the ſymptoms of ſlow nervous fevers will be produced; alſo all the different kinds of nervous fits, rheumatiſms, gouts, ſcurvies, ſmall-pox, and other putrid diſeaſes will enſue.

Hence we ſee the reaſon why long voyages, on board unventilated ſhips, corrupted air and proviſions, marſhy countries, northern climates, woody low countries, corrupted vegetable, or animal matters, produce ſcurvies.

During putrefaction, a quantity of air is generated; all the humours become gradually thinner, and the fibrous parts more lax and tender; hence a timpany ſucceeds the corruption of any of the viſcera, or the imprudent ſuppreſſion of a dyſentery by aſtringents; and the weakneſs and laxity of the veſſels obſerved in ſcurvies.

In putrefaction the craſſamentum of human blood changes into a dark, livid coloured liquor; a few drops of which tinge the ſerum of a tawny hue, like that of ichor of ſores, and dyſenteric fluxes; the putrid craſſamentum changes recent urine into a flame-coloured water, ſo common in fevers and ſcurvies; which, after ſtanding a time, gathers a cloud, reſembling what is ſeen upon the top of crude water, in acute diſtempers, with ſome oily matter upon the ſurface, like the ſerum that floats upon ſcorbutic urine.

The ſerum of the blood depoſits in putrefaction a ſediment reſembling well-digeſted pus, and changes to a faint olive-green; but it never arrives at this degree of putrefaction in a living body; though in dead bodies the ſerum is to be diſtinguiſhed from the green colour, which the fleſh acquires in corrupting; as we ſee in foul ulcers, where the ſerum ſtagnates long, the matter puts on a green colour, and is then always acrimonious.

May not all putrid and peſtilential diſeaſes, whether with or without cutaneous eruptions, be the ſame in kind, and differ only in degree, which ariſes from the morbid matter, being more or leſs cauſtic; and from the degree of elaſticity in the ſolids, which renders them more or leſs prepared for putrefaction? Are not the chicken, the ſwine, the benign, the confluent and anomulous ſmall-pox, and the plague, one and the ſame diſeaſe, differing only in degree, as corruption or rottenneſs is only an advanced ſtate of fermentation, or, as poiſons differ from one another; which difference ariſes from their being more or leſs acrid and cauſtic? Was not the venereal infection and acrimonious putrid matter, bred at firſt in the blood, by too frequent coition, which raiſes a ſtrong ferment in the blood, during the time of copulation; and, by too often raiſing this ebullition, a ſeptic matter is bred in the juices, firſt where the circulation was moſt rapid, which communicates the infection to the reſt? This ſeptic matter is not ſo contagious and cauſtic as the plague; becauſe its acrid particles are more clogged and incloſed, and therefore leſs able to expand themſelves. The

infection,

infection, when received by the abſorbent lymphatics of the place where it is firſt applied, after infecting them with ſome of the neighbouring lymphatics, is by them conveyed into the blood.

If authors don't mean, by the ſeparate and diſtinct natures of contagious, putrid, and peſtilential matter, the different degrees of activity of one and the ſame kind of matter, and accordingly call it by this or that name, I think they will ſome time find reaſon to alter their opinion: and, if there is found to be no difference, but what proceeds from its greater or leſs diſtance from putrefaction, then there follows two things.

Firſt, The medicines and regimen that are uſed with ſucceſs, in one caſe, may be uſed, in every other caſe, with equal ſucceſs; only varying the doſe, as the ſymptoms indicate.

Secondly, In the ſmall-pox, &c. there is a certain time, that the variolous matter takes to ripen, and become fit to infect another with the ſmall-pox, ſo as to enſure his ſafety from any further infection: for there may be a partial ferment raiſed in the lymphatics by a ſeptic matter; and yet that matter may not be ſo ultimately variolated, or ſo ſtrong and poiſonous, as to excite a ferment, to ſecure from any future infection. For example, Suppoſe one was to inoculate from the variolous matter before it is thrown out to the ſurface of the body, then perhaps it would raiſe no fermentation in the body; for, though the variolous matter is exceeding cauſtic, while it remains in the body; yet, being ſheathed by the gelatinous and oleous parts of the animal fluids, it is prevented from hurting the internal organs; but, when it is ſeparated upon the ſurface of the body, it is a fluid *ſui generis*, and extremely poiſonous, and will not fail to raiſe a fermentation. What the diſpoſition of the habit, and the modification of the parts of the variolous matter, and how the myaſma raiſes a fermentation, or gives the ſmall-pox to one that never had it, and not to another that has, are matters that have been generally looked up as above our comprehenſion; but I believe it will be found to depend upon the ſtructure of the abſorbent lymphatics; which receive more or leſs infection, according as they are more or leſs dilated; and, if this is true, it will be no difficult matter to conceive, and alſo to demonſtrate, that ſome people cannot, by any means, have the ſmall-pox, while others have it: and it is very eaſy to ſee the danger many are in of a ſecond infection, who have been inoculated by Mr. *S.* and ſome others of our modern quacks: therefore I beg leave, ſeriouſly, to adviſe people not too haſtily and raſhly to run into the faſhion of inoculation; and when they do determine to be inoculated,

inoculated, let them look out for one that has judgment and learning enough to know his duty; and integrity enough to do it. I ſhall conclude this ſubject, at preſent, as I deſign to handle it more at length in another part of this book; by aſking thoſe that are ſo fond of inoculation, and run into it as a blind horſe into a ditch, how they come to know whether they ſhould ever have had the ſmall pox, if they had not gone to the giver of that diſeaſe, Mr. *S.*? and if the perſon dies, is not that perſon guilty of ſuicide? Many have had the ſmall pox, by means of inoculation, that never would have had it in the natural way; even though they had frequented places, and viſited patients, in the ſmall pox. If Mr. *S.* does not underſtand, and believe this, let him diſcover his ignorance, or infidelity; and if he has any ſenſe, more than that of impoſing upon the credulous, and thereby of getting more, he ſhall receive ſatisfaction.

SIMPLICIA.

FOLIA.

Absinthium Vulgare. *Common Wormwood.*

Is a ſtrong bitter, has a bad reliſh, and offenſive ſmell, which prevents its being much uſed. The Roman wormwood is leſs diſagreeable, and poſſeſſes all the virtues of the common or ſea wormwood, therefore is moſt frequently uſed. Its virtues I have already mentioned.

Allium. *Garlick.*

All the parts of this plant, but eſpecially the roots, have a ſtrong offenſive ſmell, acrimonious, pungent, an almoſt cauſtic taſte, and extremely penetrating diffuſive ſmell: when applied to the feet, the ſcent is diſcovered in the breath; when taken internally, its ſmell is communicated to all the parts of the body, to the urine, breath, &c. Garlick warms and ſtrengthens the ſolids, and diſſolves tenacious juices, therefore good in cold leucophlegmatic habits, and proves a wonderful expectorant, diobſtruent, diuretic, and emmenagogue, and if the patient is kept warm, ſudorific; in humoural aſthmas, catarrhous diſorders of the breaſt, cold ſcurvies, flatulent cholics, hyſterics, and other diſeaſes from laxity of the ſolids, and cold indiſpoſition of the fluids, in dropſies,

dropſies, and in other diſorders where a warm ſtimulative medicine is indicated, garlick is known to have good effects; but it is as hurtful in hot, bilious, and inflammatory habits, and where the fluids are thin and acrimonious, or the viſcera unſound. Too liberal a uſe of garlick is apt to occaſion head-achs, flatulencies, thirſt, febrile heats, inflammations, and ſometimes diſcharges of blood from the hæmorrhoids. The beſt way of exhibiting garlick is in boluſes or pills, made into an unguent with oils, &c. and applied externally, it reſolves and diſcuſſes cold humours, and is good in cutaneous diſeaſes; applied to the ſoles of the feet, is moſt powerful in cauſing a derivation or revulſion from the head.

Porrum, Leek, participates of the ſame virtues with garlick, from which it chiefly differs in being weaker. The cepa or onion is of the nature of garlick, but moſtly uſed in cataplaſms. I knew a gentleman cured of an ulcerated ſore throat by the application of a cataplaſm, to the throat, made of onions and honey, which ſoon brought on a fit of the gout.

Becabunga. *Brook-lime.*

Has an herbacious, light, bitter taſte, and a ſaponacious, detergent virtue; attenuates viſcid humours, without pungency or irritation; good in hot ſcurvies, where the acrid anti-ſcorbutics are leſs proper, and in diſeaſes where the animal juices are diſpoſed to a putrid alcaleſcent ſtate; it may be given with ſorrel, orange juice, or other vegetables: it may be likewiſe joined with ſcurvy-graſs and naſturtium, to abate their acrimony. It proves a uſeful diuretic and deobſtruent, and opens the obſtructions of the capillary veſſels, which occaſion blotches and ſcabs.

Botrys. *Jeruſalem Oak.*

Has a ſtrong diſagreeable ſmell, and warm, and ſomewhat pungent taſte, good in diſeaſes of the breaſt, difficulty of breathing; promotes the female evacuations, and is carminative and aperient.

Chamædrys. *Germander.*

The leaves, tops, and ſeeds, have a bitter taſte, with ſome degree of aſtringency, and aromatic flavour; are ſudorific, diuretic, and emmenagogue; ſtrengthen the ſtomach and viſcera, and are good in intermitting fevers, ſcrophulous, and other chronical diſorders.

Coch-

Cochlearia Hortensis. *Garden Scurvy-Graſs.*

Is a pungent, ſtimulating medicine, diſſolves viſcid juices, promotes the fluid ſecretions, good in infractions of the lungs, cutaneous obſtructions, proceeding from ſcorbutic eruptions and ſcabs, and in chronical diſtempers and ſcurvies; but is hurtful in thin, dry, hectic habits, as it adds a heat and motion to the blood: it gives over all its virtues in diſtillation. A conſerve made of its leaves is kept in the ſhops, and retains the taſte and virtue of the herb for a conſiderable time. It is taken in ſcorbutic habits, three or four times a day, as a ſoftener, and cooler of the blood; if duly continued, will do ſervice ſometimes without any other medicine joined to it.

Erysimum. *Hedge Muſtard.*

The leaves have an herbacious taſte; the ſeeds are pungent, and ſo are the roots in a ſmall degree; they are aperient and diſcuſſive; good in aſthmas, infractions of the lungs, chronical coughs, and ſettled hoarſeneſs; they promote urine, and all the fluid ſecretions, and diſſolve viſcid juices.

Fumaria. *Fumatory.*

Has a bitter taſte, and no ſmell; ſtrengthens the tone of the viſcera; looſens the belly, and promotes the urinary, and other natural ſecretions; opens obſtructions of the viſcera; attenuates and diſſolves viſcid humours; purifies the blood; and is good in the jaundice, melancholy, ſcurvy, and in all cutaneous diſorders. Watry and ſpirituous menſtrua extract its virtues.

Genista. *Broom.*

The leaves, flowers, and ſeeds, have a nauſeous bitter taſte; purge by ſtool and urine; good in dropſies; the flowers are ſaid to be cathartic in decoction, and emetic in ſubſtance. Some account them ſplenetic, nephritic, hepatic, and good in cachexies.

Gratiola. *Hedge Hyſſop.*

Has a very bitter, diſagreeable taſte: one handful of the leaves, when freſh, or 3i, when dried and infuſed in water, is ſtrongly cathartic. The root is ſaid to be ſimilar in virtue to ipecacuanha.

Hyssopus. *Hyſſop.*

Has a warm pungent taſte, and aromatic ſmell; is good in humoural aſthmas, coughs, and other diſorders of the breaſt and lungs; notably promotes expectoration, and gives relief in difficulty of breathing. The Edinburgh College orders a water to be diſtilled from the leaves of hyſſop, which is kept in the ſhops, and is by ſome held in conſiderable eſteem as an uterine and pectoral medicine; but I believe no ſingular virtues are to be expected from it, nor is it often made uſe of, or met with in the ſhops.

Nasturtium Aquaticum. *Water Creſſes.*

Has a quick pungent ſmell, and acrid taſte; is a mild aperient, and antiſcorbutic; accelerates the circulation, ſtrengthens the viſcera, opens obſtructions of the glands, promotes the fluid ſecretions, purifies the blood and humours, and is good in chronical caſes.

Ruscus. *Butchers Broom.*

The root is one of the five opening roots; has a ſweet taſte, followed by a bitter one; is uſed in apozems, and diet drinks, for opening light obſtructions of the viſcera; purifies the blood and juices; and promotes the fluid ſecretions.

Tanacetum. *Tanſy.*

Has a ſtrong diſagreeable flavour, and moderately warm bitter taſte; good in hyſterics, proceeding from a ſuppreſſion of the uterine purgations. The ſeeds are leſs bitter, and more aromatic than thoſe of rue, to which they are reckoned ſimilar. The leaves are ſaid to kill worms.

Trifolium Palustre. *Marſh Trefoil.*

Has a bitter, ſomewhat nauſeous taſte; is an efficacious aperient and deobſtruent; promotes the fluid ſecretions, and if liberally taken, gently looſens the belly; good in ſcorbutic and ſcrophulous diſorders, inveterate cutaneous diſeaſes, in the gout, and in many chronical caſes.

VERBENA. *Vervain.*

Has an herbacious taſte and ſmell, is detergent, and good in indurations of the liver, ſpleen, reins, or meſentery; is little uſed internally, but often externally, in cataplaſms, for gouty pains and ſwellings, &c.

VERONICA, MAS. *Speedwell.*

Has an herbacious, rough, bitter taſte, and weak aromatic flavour; is detergent and vulnerary; good in eroſions and obſtructions of the viſcera, eſpecially of the lungs; ſome recommend it as an alexipharmic, and good in malignant and epidemical caſes; as alſo in anti-ſcorbutic ſecretions to cleanſe the blood, and wear away blotches and cutaneous eruptions, and ulcers in the breaſt and lungs; it is ſimilar to the betonica.

FRUCTUS.

AMYGDALUS AMARA. *Bitter Almonds.*

The eye diſtinguiſhes no difference betwixt the trees which produce the ſweet and the bitter almonds, or between the kernels of them. Both ſorts yield, by expreſſion, a large quantity of oil, which has no particular taſte or flavour. Sweet almonds are more uſed in food than in medicine. Bitter almonds are poiſonous to dogs, and to ſome other creatures. The medicinal virtues of almonds I have already mentioned.

FICUS COMMUNIS. *Common Fig.*

Is nutritious, and grateful to the ſtomach; emollient, lubricating, and frequently employed in pectoral decoctions; promotes expectoration, therefore good in all aſthmas, and difficulty in breathing; is diuretic, and cleanſes the urinary paſſages, and peſtilential bubos; and, being toaſted by the fire, is good for impoſthumations in the gums and ears.

JUJUBÆ. *Jujubs.*

Are a half-dried fruit brought from France; have a ſweet pleaſant taſte; are good in an acrimonious ſtate of the juices, and in coughs, from thin, ſharp defluxions;

fluxions; and are of ſervice in heat of urine; though the preſent practice pays little regard to them.

Uvæ Passcæ. *Raiſins.*

Give a pleaſant ſweet taſte to an aqueous and ſpirituous menſtruum; are deterſive and expectorating. They diſlodge obſtructed viſcidities in the bronchia, and cleanſe the viſcera, kidnies, and urinary paſſages; and, given in gruel or broth, cool and relax the bowels. The ſebeſtrens are brought from the Eaſt Indies; of a dark brown colour, and of a ſweet and very glutinous taſte; they are generally uſed in the ſame intentions as figs, but are rarely to be met with in the ſhops. The Dactyli dates, which have the ſame virtues, are ſo ſeldom met with, that phyſicians never write for them. The Caricæ figs are nearly of the ſame virtues, and enter the pectoral decoction of lenitive electuary, and are externally uſed as a ripener.

GUMMI & BALSAMA.

Copaiba. D. gut. 20 or 30 to 60.

Is a liquid reſinous juice, brought from the Spaniſh Weſt Indies; of a clear tranſparent white, or yellow colour; has an agreeable ſmell, and bitter pungent taſte; is about the conſiſtence of oil, or a little thicker; if long kept, becomes of the conſiſtence of honey; it entirely diſſolves in rectified ſpirit; diſtilled with water, it yields a limpid eſſential oil; is corroborant and detergent, accompanied with a ſmall degree of irritation; ſtrengthens the nervous ſyſtem; tends to looſen the belly, and in large doſes proves purgative; promotes urine, and expels gravel; cleanſes and heals ulcerations in the urinary paſſages; is extremely good in gleets, and *fluor albus*; and is ſerviceable, externally, as a vulnerary. It is good in dyſenteries, ſcorbutic cachexies, diſeaſes of the breaſt and lungs, and in an acrimonious and putreſcent ſtate of the juices; cures dangerous coughs that threaten conſumptions, and is good in hectic caſes: with the yolk of an egg, it mixes in any liquid form; triturated with almonds, it forms an emulſion; or, agitated with milk, makes a uniform mixture.

Mastiche. *Maſtich.*

Is a reſin brought from Chio, in ſmall, yellowiſh, tranſparent grains, or tears; of an agreeable ſmell; good in coughs, dyſenteries, hæmoptoes, weakneſs of the ſtomach; and in all debilities and laxities of the fibres: rectified ſpirit al-

moſt entirely diſſolves it; but water extracts little from it. Maſtich removes nauſea and flatulencies; ſtops vomiting, catarrhs, tickling coughs, and ſpitting of blood; blunts the acrimony of the humours; ſtrengthens, as well as cleanſes, the reins; is good in ſeminal weakneſs, gonorrhæa, whites, and in diarrhæas; and is uſed externally in ſtrengthening and diſcutient plaſters, &c.

Tacamahacca.

Is a reſin, brought from America; is ſomewhat unctuous and ſoft; of a pale-yellow green colour; has a fragrant taſte, and aromatic ſmell; is little uſed internally, but often externally, to ſuppurate and diſcuſs tumours; and, even in ſcrophulous caſes, it abates pains and aches of the limbs.

Opobalsamum. *Opobalſam, or Balm of Gilead.*

Is a gummy, reſinous, concrete juice, brought from Arabia; is at firſt turbid and white; has a ſtrong pungent ſmell, and bitter, acrid, aſtringent taſte; but, being kept for ſome time, becomes thin, limpid, and light; of a green hue, and then of a gold yellow: it wonderfully opens obſtructions of the lungs; heals eroſions from acrimony, and the worſt kinds of ulcerations; nothing exceeds it in aſthmas, pleuriſies, and where-ever expectoration is required; all inward decays, bruiſes, or ſores, particularly thoſe of the reins and urinary paſſages. Its great ſcarcity here prevents its coming much into uſe.

Sapo. *Soap.* D. 31 to ℥ſs.

There are three kinds of ſoap; the white, brought from Caſtile, or Venice, (otherwiſe call'd Caſtile or Venice ſoap) the common ſort, and black ſoap. They are compoſed of expreſſed vegetable oils, or animal fats, united with alkaline lixivia. The firſt ſort, which is the only one appropriated to medicinal purpoſes, is made with a finer kind of oil olive; ſometimes the oil of almonds is uſed, then the ſoap is called Sapo Amygdalinus, ſoap of almonds: the common ſort is made with coarſe oils, fat, or tallow; and the black ſoap with train oil. Sapo Purificatus, purified ſoap, is dry hard Genoa, or any other oily ſoap, ſliced into a veſſel with rectified ſpirit of wine, allowing two gallons to a pound, digeſted till the ſoap is diſſolved; it is afterwards decanted, and the ſpirit diſtilled off; and the remainder, being expoſed to a dry air, becomes a white, opake, freeable

freeable maſs; it has little or no ſmell, or acrimony, but is mild, ſoft, and well fitted for medicinal purpoſes. Soap triturated with oil, or reſinous matters, renders them ſoluble in water; and hence becomes a uſeful ingredient in pills, compoſed of reſins; it promotes their ſolution in the ſtomach, and union with the animal fluids. Soap is decompounded by all acids; its proper menſtruum is proof ſpirit; pure ſpirit of wine diſſolves it in ſmall quantities; which, being expoſed to cold, congeals into a ſolid and very tranſparent maſs. Soap diſſolves oily unctuous matters in the body; attenuates viſcid juices; opens obſtructions of the viſcera; deterges all the veſſels; and diſſolves the human calculus; and, a ſolution of it in lime-water, is one of the ſtrongeſt deobſtruents that can, with ſafety, be taken into the ſtomach: ſoap is very good in the jaundice, if the patient does not ſpit blood; as it divides and rarifies the moſt viſcid and obſtinate grumes, ſo as to fit them for expulſion; it is a good diuretic, and of wonderful ſervice in nephritic caſes; but ought not to be uſed in an alcaleſcent or putrid ſtate of the juices; as it ſeems to operate by reſolving, attenuating, and reducing the fluids, to a putreſcent or reſolved ſtate. Mrs. *Stevens*'s medicine for the ſtone is made of Alicant ſoap, from two ounces to three, diſſolved by boiling in ſuch a quantity of water as will produce a pound and half of decoction, which is ſtrained, and ſweetened to the palate with honey or ſugar; of this decoction half a pint is to be taken three times a day, after each doſe of calcined egg-ſhells; which is to be from ℈2 to ʒ1, in any convenient vehicle. The egg-ſhells are ordered to be calcined by a ſtrong fire for eight or ten hours, and afterwards to be expoſed for a month or two in dry air, till the greater part falls into a ſubtle powder. Dr. *Harley* has improved upon Mrs. *Stevens*'s medicine; he directs it to be made of Alicant ſoap ℥8, quick-lime powdered and ſifted ℥1, fixed alcaline ſalt ʒ1: the ſoap, being mixed with the lime and ſalt, is beaten into a ſoft paſte, with a ſufficient quantity of water; and then made up into rolls of the weight of ℈4. The patient, every morning, is to take from 8 to 24 of theſe rolls; if coſtiveneſs enſues, the quantity of lime is to be diminiſhed; if looſeneſs, the quantity of ſoap is to be leſſened.

CORTICES.

Betula. *Birch-Tree.*

The juice obtained from the birch-tree (commonly called birch-wine) is good in ſcorbutic diſorders, and in other foulneſſes of the blood; and is a good diuretic.

Ebulus

EBULUS. *Dwarf Elder.*

The leaves, roots, and bark, have a nauſeous, ſharp, bitter taſte, and acrid, ungrateful ſmell; they are ſtrong cathartics; and much recommended in dropſies; ſometimes they evacuate violently upwards; and almoſt always nauſeate the ſtomach, and occaſion great uneaſineſs in the bowels: they become milder, and more ſafe, in their operation after boiling.

Rob. Baccarum Sambuci, *Rob of Elder-Berries*, which we have already mentioned, is an excellent reſolvent; opens obſtructions of the viſcera; promotes the natural ſecretions by ſtool, urine, and ſweat; may be taken to the quantity of an ounce, as a cathartic, and in chronical caſes, a drachm of it is an excellent deobſtruent: in common colds a ſpoonful of it, diluted with water, or white wine whey, taken at bed-time, proves a ſerviceable medicine.

RADICES.

ARUM. *Wake Robin.* D. ℈ı *to* ʒı.

Has an extremely pungent taſte; is irritating and attenuating; of great ſervice in cold, ſluggiſh habits, and diſorders proceeding from thick, tenacious phlegm, which it powerfully diſſolves; and, by ſtimulating the ſolids, promotes the expulſion, either through the pores of the ſkin, or through the groſſer emunctories; good in phlegmatic and ſcorbutic caſes; it penetrates and rarifies tough concretions, and infractions of the brain in the capillary veſſels; good in humoural aſthmas, and obſtructions of the bronchia; breaks and wears away thoſe little ſtoppages in the extremities, and cutaneous glands, which occaſion itching, and ſcabs; and is therefore reckoned a powerful antiſcorbutic. The beſt method of exhibiting it is by beating the freſh root with gummy reſins, and forming the mixture into pills.

CURCUMA *Turmeric.*

Has a deep, lively, yellow colour, which it imparts to water; has an agreeable weak ſmell, and bitter warm taſte; is aperient and emmenagogue; and of great ſervice in the jaundice: it tinges the urine yellow.

GLYCYRRHIZA.

Glycyrrhiza. *Liquorice.* D. *from* ℈ss *to* ʒss.

Has a brown-yellow colour, and rich ſweet taſte; is a uſeful pectoral; and excellently ſoftens acrimonious humours; is gently detergent; good in ſpitting of blood; tickling defluctions; catarrhs; and all kinds of coughs; it expectorates; and is therefore good in aſthmas, and difficulty of breathing; in pleuriſies, tubercles, and eroſions of the lungs: ſome preſcribe it as a deobſtruent in the jaundice, and as a diuretic in the dropſy; it is often uſed as a corrector of ſome cathartics; and is ſeldom neglected in preſcriptions of ſena and rhubarb.

Extractum Glycyrrhizæ, Extract of Liquorice, is exceedingly ſweet, not at all nauſeous; and is more agreeable in taſte than the root itſelf; has a pleaſant ſmell, and reddiſh-brown colour; and, when drawn out into ſtrings, is of a bright gold-colour; it is totally ſoluble in water; and is a very convenient preparation for many purpoſes, if judiciouſly made: what is brought to us from abroad is very ſeldom good: to have it in perfection the boiling ſhould not be continued long, and the quantity of water ought to be large to extract the virtues of the root. A quart, or at moſt three pints, is fully ſufficient for a pound of liquorice.

Enula Campana. *Elecampane.*

Has an aromatic ſmell; and a light, aromatic, pungent, bitter taſte; is alexipharmic; promotes expectoration in humoural aſthmas, and coughs; liberally taken, it excites urine, and looſens the belly; ſtrengthens the ſtomach and tone of the viſcera in general; attenuates viſcid juices; is good in waſtings, and confirmed conſumptions; in cancers and ulcerations. Spirituous liquors extract its virtues much better than the aqueous. The Radices Heleni, Elecampane, were formerly kept candied in the ſhops.

Extractum Radicis Enulæ Campanæ, Extract of the Roots of Elecampane, is made with water; retains a great ſhare of the virtues of the root; its taſte is ſome what warm, and not ungratefully bitter; good in a lax ſtate of the fibres of the ſtomach; and in other diſeaſes of the breaſt; may be given from ℈ss to ʒss.

Lapathum.

Lapathum. *Dock.*

There are three kinds of dock, the *oxylapathum*, ſharp-pointed; *hydrolapathum*, great water dock; and the *lapathum unctuoſum*; otherwiſe called *bonus Henricus*. The roots of theſe plants looſen the belly; and are uſeful ingredients in decoctions for removing a coſtive habit; good in ſcorbutic and cutaneous diſorders, both internally and externally; in ointments, cataplaſms, and fomentations *Diaſcorides* ſays, that the lues venerea will yield to an infuſion of ℥6 of water-dock root, and ℥2 of ſaffron, of mace, cinnamon, gentian root, liquorice root, and black-pepper āā 3ß, (where the pepper is improper ℥6 of liquorice may be uſed) reduced into a coarſe powder, and put into a mixture of two gallons of wine, and the yolks of three eggs; the whole digeſted with a moderate warmth for three days in a glazed veſſel, well ſtopped up: the doſe from ℥3 to 6, every morning, upon an empty ſtomach for fourteen or twenty days together, or longer.

Pentaphyllum. *Cinque Foil.* D. 51.

Is moderately aſtringent; good in diarrhæas, and in other fluxes, and gargariſms for ſtrengthening the gums. The cortical part of the root may be given in doſes of 3ß: the internal part is much weaker; and ſome have recommended it in palſies, gout, and phthſic; in too great humidity of the womb; in jaundice, and obſtructions of the liver and ſpleen; it obtunds the acrimony of aduſt choler; is good in hæmorrhoids, and bleeding of the noſe.

Rubia Tinctorum. *Madder.*

Has little ſmell, and ſweet taſte, mixed with a bitter is a good detergent and aperient in obſtructions of the viſcera, particularly of the kidneys; good in coagulations of the blood, from falls or bruiſes; and is found of ſervice in the jaundice, and in the beginning of the dropſy: it tinges the urine of a deep red; is uſed in diet drink, and in decoctions for cachectic perſons; its parts are very ſubtile, and capable of doing great good.

Saponaria. *Soap-Wort.*

Has a ſweet, agreeable, pungent taſte, and a light ſmell; is aperient, corroborating, and ſudorific; good in aſthmas, and diſorders of the breaſt, that require expectoration,

expectoration, &c. it is outwardly uſed for diſcuſſing and ſuppurating tumours.

MINERALIA.

Petrolium Barbadense. *Barbadoes Tar.*

Is nearly of the conſiſtence of common tar; has a reddiſh-black colour, and diſagreeable ſmell: it was formerly uſed as a ſudorific, and in diſorders of the breaſt and lungs; though now it is rarely made uſe of. The College directs an oil to be diſtilled from it.

Sulphur. D. from gr. 10 to ʒ2.

Is a kind of bitumen, or inflameable mineral ſubſtance, of a yellow colour; it diſſolves in alkaline liquors; and is either obtained from certain ores, found in the earth, by a kind of diſtillation; or artificially compoſed by uniting vitriolic acids with inflameable matters. At ſome of the Saxon ſulphur works, certain minerals, abounding with vitriolic acid, but containing little or no ſulphur, being alternately laid *ſtratum niper ſtratum*, with wood, and the wood, being then ſet on fire, a large quantity of ſulphur is then produced. Sulphur is frequently found native in the earth. All the parts of ſulphur agree together; they contain an oily acid, a vitriolic ſalt, and earth; they are penetrating and attenuating, and looſen the belly; ſulphur promotes inſenſible perſpiration; is celebrated in curing cutaneous diſeaſes, given both internally and externally, as the itch, ſcurf, ſcabs; it kills worms; and has been recommended in coughs, aſthmas, and in other diſorders of the breaſt and lungs; but, in theſe caſes, it has no very conſiderable effects, unleſs where the diſeaſe proceeds from the blood's being tainted by ſcrophulous and ſcorbutic humours; where this happens, the prudent uſe of ſulphur generally does good ſervice, as it throws out a plentiful eruption upon the ſkin, and, by degrees, carries off the peccant matter. Mercury is rendered inactive by the admixture of ſulphur; hence, when mercurial medicines are too violent in their operation, the exhibition of ſulphur abates their violence. A high ſalivation may be checked by it; and the corroſive poiſon, arſenic, by the addition of ſulphur, becomes almoſt innocent. Spirits ſeem to be ſulphur wrapped round the globules of water, and intimately united with them, in ſuch a manner as to keep their particles at a greater diſtance than before, and thereby leſſen the gra-

vity without deſtroying the fluidity. They are ſo cloſely united, that when the fire acts upon the ſulphur, it carries up the particles it has ſeized along with it.

Sal Marinus. *Sea-Salt.*

Sea-water yields from one-fiftieth to one-thirtieth its weight of pure ſalt; ſeveral ſpings afford much larger quantities. There are two methods of obtaining the common ſalt from theſe natural ſolutions of it; the one by a quick evaporation of the aqueous fluids, till the ſalt begins to concrete, and fall in grains to the bottom of the evaporating pan; from whence it is taken out, and put into proper veſſels, to drain from the brine: the other, by a more ſlow and gradual evaporation; continued no longer than till a ſaline cruſt forms on the top of the liquor; which, upon removing the fire, ſoon begins to ſhoot, and to run into cryſtals of a cubical figure. In the warmer climates both theſe proceſſes are effected by the heat of the ſun. The ſalt, got by haſty evaporation, is very apt to relent in a moiſt air, and run per diliquium; an inconvenience which the cryſtalized ſalt is not liable to.

Sal Communis, Common Salt, diſſolves in ſomewhat leſs than three times its weight of water; a ſmall quantity of it, added to the nitrous acid, enables it to diſſolve gold; but renders it unfit for diſſolving ſilver. This ſalt is either found in a ſolid form in the bowels of the earth, or diſſolved in the waters of the ſea, or ſaline ſprings.

Sal Gemmæ, Rock-Salt, is met with in ſeveral parts of the world; but in greateſt plenty in certain deep mines, of great extent, near Cracow, in Poland; ſome is found in England, particularly in Cheſhire. It is, for the moſt part, very hard, generally of an opake, ſnowy whiteneſs; though ſometimes it is found of other colours. Theſe ſalts differ little from one another in virtues; they check fermentation; and, in ſome ſmall degree, reſiſt putrefaction; aſſiſt the ſtomach, in regularly digeſting the food; gently irritate the ſolids, and open the belly; check the operation of emetics, and carry them off by ſtool; and are uſed in clyſters.

Hydragyrus, Argentum Vivum, *vel* Mercurius. *Mercury, or Quick-Silver.*

Mercury is an opake, ſilver-coloured, mineral fluid, found in mines; is heavier than any other fluid; and comes next in ſpecific gravity to gold; is met with, in a fluid form, in the earth, or extracted, by art, from certain ores; it is

is of a liquid form, from the figure of its parts being round, and ſlip eaſily over one another, having no acid to ſtick or faſten its parts together; for the firmneſs of other metallic bodies is owing to an acid, which conſtringes or hooks together their particles. The greateſt quantity comes from the Eaſt-Indies; though there are conſiderable mines of it in Hungary and Spain. Mercury was little known in phyſic before the fifteenth century. It hath been given in its crude ſtate, in aſthmas, and diſorders of the lungs; and boiled in water for killing worms; ſome give it in obſtructions of the bowels; and think that it acts by its weight, which is a very erroneous opinion; for, when it is taken into the ſtomach, it muſt fall to the bottom; which is ſo much below the pylorus, that it requires a great force to throw it into the inteſtines; and when it comes there, by their manifold convolutions, it very frequently aſcends, and particularly while it paſſes the colon. Mercury, either exhibited internally or externally, acts as a ſeptic; it liquifies the juices of the body, even thoſe of the minuteſt and moſt remote veſſels; and promotes excretion through all the emunctories; is of great ſervice in many inveterate chronical diſeaſes, ariſing from the thickneſs and ſluggiſhneſs of the humours; and from obſtinate obſtructions of the excretory glands; it breaks the edges of the ſalts, and thereby renders them unable to tear and deſtroy the fine and delicate fibres; it is therefore good in ſcrophulous and cutaneous diſeaſes, lues venerea, itch, and tetters; diſſolves cold tumours, by opening the pores and expelling the obſtructed matter by tranſpiration: if its power is not retarded by a proper determination to certain emunctories, it tends chiefly to affect the mouth; and, having fuſed the juices in the remoter parts, occaſions a plentiful evacuation of them from the ſalival glands; which is preceeded by a ſwelling of the head, and ſhankers upon the inſide of the mouth. The ſalutary effects of mercury have no dependence on the quantity of ſenſible evacuation; for it may be gradually introduced into the habit, without occaſioning any remarkable diſcharge, and yet be productive of very happy effects. To anſwer this purpoſe, it ſhould be exhibited in very ſmall doſes, in conjunction with ſudorifics; and by this method of treatment, inveterate, cutaneous, and venereal diſtempers, have been cured without any other ſenſible excretion, than a gentle increaſe of perſpiration. If there are ulcers in any part of the body, they diſcharge, for ſome time, an extreme fœtid matter, the quantity of which becomes gradually leſs; and, at length, the ulcer kindly heals up. If mercury ſhould at any time from cold, or the like, affect the mouth, it may be reſtrained by omitting a doſe, and by warm ſuitable medicines, which promote

perſpiration. Mercury, combined with a ſmall quantity of the mineral acids, acts effectually, though, in general, very mildly; with a greater, it proves violently corroſive; but ſulphur reſtrains its action; it is totally volatile in a ſtrong fire, and calcinable by a weaker one into a red, powdery ſubſtance; it diſſolves in nitrous acid; is corroded by the vitriolic; and not at all acted upon in a liquid ſtate by the marine acid; but it may be combined with it, if ſkilfully applied in the form of fume; it unites, by trituration, with earthy, unctuous, reſinous, and other like ſubſtances, ſo as thereby to loſe its fluidity; triturated with ſulphur it forms a black maſs, which, by ſublimation, changes into a beautiful red. Mercury, as it is the moſt ponderous of all fluids, ſo it is the moſt divided and diviſible, as appears by its penetrating power; and each of its particles, how minute ſoever, retains its ſpecific gravity, which is greater than that of any other fluid, and is proportionable to the weight of its whole bulk; this makes it able to force its way; and the rotundity of its parts, with its fluidity, makes them proportionably ſmooth, and conſequently can give no hurt to the capillary veſſels: hence if mercury is mixed with our fluids, and a motion impreſſed upon both of them by the ſame cauſe, the mercury will be carried much more ſwiftly, and will keep its motion longer than the other fluids; wherefore its particles, impinging upon the ſlower moving particles of our fluids, will penetrate, divide, and comminute them, by a certain force ariſing from the exceſs of its velocity, and will thereby impreſs a greater motion upon them: But though this action of mercury on our fluids depends entirely on its ſolidity; yet it may be increaſed by reducing it into minutæ; for then every particle will receive a proportionable power of acting from the increaſe of its ſurface. Mercury, being received into our bodies, does not act on the fluids, except in the ſmalleſt veſſels; for, ſo long as it is moved in the greater veſſels, the infinite ſmallneſs of its parts, and their great force of attraction, ariſing from the general principles of their weight, figure, and quantity of matter, always make it when its ſpherical particles are brought near enough each other, to run into drops, and is not therefore, in the larger veſſels, intimately mixed with our fluids; but, being brought into the ſmalleſt veſſels, it is there divided into minutæ from the ſtreightneſs of the paſſages, and is then perfectly mixed with our fluids: whence it is manifeſt, that mercury does not immediately act upon the blood, (properly ſo called) but upon the lymph, contained in the ſmalleſt veſſels; hence the reaſon appears, why in obſtructed bodies, as in thoſe who labour under the venereal diſeaſe, dropſy, ſcurvy, &c. it operates with greater force than where all the veſſels

veſſels are open. Mercury therefore, taken into the body, acts by dividing and diſſolving the moliculæ of our fluids that are too much compacted, and thereby opens obſtructions; it liquifies the juices by its alkaline quality, whereby it abſorbs that acid ſpirit which is the cement of all bodies; for the leſs quantity of this acid any animal body contains, the more fluid it is, and the nearer it is to a ſtate of putrefaction: what a noble medicine mercury is, in all chronical caſes, where the juices are viſcid, and the organs obſtructed, they only, who have an opportunity to behold its wonderful effects, can ſay; for, by whatſoever mechaniſm our fluids ſuffer attrition and comminution, and are broken, ſo as to be reduced into very minute parts; by the ſame they are rendered fit and ready for an eaſy and copious flux into the lateral lymphatic veſſels; but that the effect of mercury is ſuch, as has been already deſcribed, is manifeſt from hence, that if the ſpittle or urine be divided into minute parts without attrition, either by the heat of the ſun, or fire, it will emit the ſame ſtink, as ſpittle, moved by mercury. The force of mercury is much promoted by the addition of any ſtimulus, as a cauſtic, or an acid; then it produces horrid ſalivations, and intolerable purgings. When we deſign to ſalivate, we ought to prepare the humours for a proper fluidity, that the mercury may thereby eaſily unite with them; therefore we ſhould previouſly bleed, purge, &c. as the caſe requires: the doſe at firſt ſhould be ſmall, increaſing it gradually according to the ſtrength of the patient; when the jaws once begin to ache, give no more, but a doſe now and then to keep up the flux; if the ſpitting, after continuing above three weeks, does not ſtop, then we are to uſe deterſive gargariſms, a purge, or a doſe of ſulphur; and, after ſalivation, two or three doſes of purging phyſic are very proper. The brain, in ſalivation, as ſome have imagined, is not ulcerated as the mouth; becauſe the mercury, being ſo clogged with a mucilaginous moiſture, is fain to loſe ſome part of its acrimony, and retain only a power of cauſing a fermentation, which makes the phlegm paſs off through the ſalivating glands, and the ſpittle becomes ſharp and ſtinking; and the mouth is, on this occaſion, the ſink of the body; for mercury received into the body, and mixed with the ſaline acid, and obſtructed matter, ſublime together, and the heat of the body draws them to the head, which is the top of the veſſel where they condenſe; then the head begins to ſwell, and the inſide of the mouth fills with ſhankers; and the ſalivating veſſels, being pricked and corroded with a ſharp humour, open and diſcharge abundance of phlegm, which carries along with it the keen, ſharp, and acrid ſalts, and thereby mitigates the pain: if the patient is not properly prepared with broths, purges, bleeding, &c. to receive a flux; or if the flux is received too ſoon, or in too violent a degree, it occaſions

grievous

grievous hæmorrhages, ariſing from ſome part of the ſublimate, ſticking to one or more of the veſſels. Mercury pervades the whole body; and, where it meets with a viſcid humour or obſtruction, it attenuates, penetrates, divides, and fits it to flow, and thereby removes the obſtruction; and, where it meets with acrimony, it abſorbs, incloſes, breaks, and deſtroys its edges, and thereby raiſes a fermentation; and if the acrid matter is not ſufficient to detain it, and ſublime, by the heat of the body to the head, then the mercury either paſſes off by tranſpiration, and carries off the ſalts along with it, or precipitates downward, and paſſes off by ſtool. Now as the ſmall-pox, plague, and all other putrid and malignant fevers, occaſioned by an infectious air, corruption of humours, &c. contain a certain acrid myaſma; which acts by ſlowly coagulating the blood, and raiſing a fermentation, which haſtens to putrefaction, as putrefaction is nothing but an advanced ſtep of fermentation; what more ſovereign remedy therefore can be uſed than mercury? which, after properly preparing the patient, may be given in ſmall doſes; and, when it begins to affect the mouth, it is better to carry off the morbid matter by ſtool, than to allow it to diſcharge itſelf by the mouth; and when we have ſo far conquered, and carried it off before the ſmall-pox, &c. appears, that very little remains, then we may give diaphoretics, joined with ſmall doſes of mercury, through the whole courſe. The propereſt diaphoretics, to be joined with mercury, are antimonials.

Argenti Vivi Purificatio, *Purification of Quick-Silver*, is performed by diſtilling it in a retort, and then waſhing it with water and common ſalt, or with vinegar: but the pureſt mercury is what is revived from *cinnabar*, called *Mercurius Reſuſcitatus*.

PRÆPARATA.

L. E. Flores Sulphuris. *Flowers of Sulphur.* D. ℈i to ℥ß.

Are the fineſt parts of ſulphur, ſeparated from the groſſer by ſublimation. This proceſs makes no change in the qualities of the ſulphur; but only ſeparates it from its impurities. The flowers of ſulphur are good in diſeaſes of the breaſt, and cutaneous diſtempers, both internally and externally uſed; they are certainly good balſamics and detergents. Every preparation from this mineral is very effectual in lowering a ſalivation, and preventing the operation of mercury by theſe particular glands; gives great eaſe to thoſe troubled with hæmorrhages; and often cures agues, taken in a glaſs of wine, juſt before the return of the fit.

L. Flores

L. Flores Sulphuris loti. *Waſhed Flowers of Sulphur.* D. 31 to 32.

Are the flowers of ſulphur boiled in water; then waſhed in cold water, and dried. They differ from the former, only in being free'd from any little impurity, that the other may perhaps contain. Some of the flowers that ariſe at firſt are ſometimes apt to take fire, and are thereby changed into a volatile acid vapour; which, mingling with the flowers that afterwards ſublime, communicate to them a notable degree of acidity; in ſuch a caſe, the ablution here directed, is abſolutely neceſſary; for the flowers, thus tainted with acid, ſometimes occaſion gripes; and may, in other reſpects, be productive of effects different from thoſe of pure ſulphur.

Flores Sulphuris Albi, white flowers of Sulphur, are ſulphur mixed with half its quantity of ſalt-petre, put into a retort, and the flowers ſublimed; they are uſed, and given in the ſame doſe, as the former. The Colleges take no notice of them.

L. Sulphur Præcipitatum. *Sulphur Præcipitated.*
E. Lac Sulphuris. *Milk of Sulphur.* D. gr. 10 to 31.

Is made by boiling the flowers of ſulphur with twice their weight of quick-lime, till the ſulphur is diſſolved; and, after filtration through paper, a precipitation is made with weak ſpirit of vitriol; and the powder is made perfectly inſipid by frequent lotions. The Edinburgh College directs their milk of ſulphur to be made of the liver of ſulphur, powdered, and boiled in four times its quantity of water, then filtrated; and the powder, precipitated with ſpirit of vitriol (diſtilled vinegar will do as well) is afterwards waſhed, and dried for uſe. This medicine is nearly the ſame, in both ways of preparing it, and is not different in quality from pure ſulphur, to which it is preferred in unguents, on account of its colour; ſome reckon it more ſudorific than the flowers; and is pretty frequently preſcribed for that purpoſe.

L. Balsamum Sulphuris Simplex. *Simple Balſam of Sulphur.*
D. gut. 10 to 40.

Is made of the flowers of ſulphur, boiled with four times their weight of oil-olive, till they become of the thickneſs of a balſam. *Balſamum Sulphuris Craſſum, Thick Balſam of Sulphur*, of the Edinburgh College, is made with oil of linſeed, in place of oil-olive: after the ſame manner are prepared, *Balſamum Sulphuris*

Sulphuris Juniperatum, Terebinthinatum, vel Barbadenſe, Succinatum & Aniſatum. Balſam of Sulphur with Oil of Juniper, Oil of Turpentine, Oil of Amber, and Oil of Aniſeeds. Indeed in making the balſam of ſulphur, with oil of aniſeeds, you add likewiſe the oil of turpentine, allowing ℥ss of the former, and ℥i of the latter, to ℥ii of ſulphur. This balſam is hotter than any of the reſt; and ſhould only be given in doſes from gut. 15 to 20. All the balſams of ſulphur are recommended in coughs, aſthmas, conſumptions, and other diſorders of the lungs; alſo externally uſed to cleanſe and heal ulcers, and foul runnings: they are all manifeſtly hot, acrimonious, and irritating, and ſhould be uſed with caution; for they have frequently been found to injure the appetite, offend the ſtomach, and viſcera, parch the body, and occaſion thirſt and febrile heats.

Balſamum Sulphuris Martis, Balſam of Sulphur with Iron, is obtained by mixing filings of ſteel, with five times their quantity of ſpirit of ſalt; and putting the mixture into a retort, with a ſufficient heat, to make it ſend over red flowers, and a yellow ſpirit, which are mixed together, and placed in a digeſtive heat for twenty-four hours, with twice the quantity of oil of turpentine; which, when cold, muſt be carefully ſeparated from the fœces for uſe. It is ſaid to be a good vulnerary, internally and externally uſed: alſo ſerviceable in all diſtempers of the breaſt and lungs, in the gravel, and ulcers in the reins; and may be given from gut. 10 to 60; outwardly applied, it cicatrizes, and heals ulcers.

Sanguis Sulphuris, Blood of Sulphur, is prepared of the liver of ſulphur, with one-half of its quantity of oil of tartar, per diliquium, and three times its quantity of dulcified ſpirit of nitre, digeſted for ſome time; and, when cold, decanted for uſe. It is ſaid to be a good pectoral and diuretic; is beſt taken with ſyrup, or mixed with loaf-ſugar, drinking after it a draught of Canary, or warm ale. D. gut. 5 to 30.

E. Hepar Sulphuris. *Liver of Sulphur.*

Is made of the flowers of ſulphur melted ℥ss, ſalt of tartar ℥iſs, gradually added, and the matter ſtirred, till it has acquired a red colour. This preparation ought to be perfectly ſoluble in water; and, to render it ſoluble, there ought to be twice as much alkaline ſalt as ſulphur. A ſolution of hepar ſulphur in water, and made with ſugar into a ſyrup, has been recommended in the ſame intentions, as the balſams above mentioned; but the College has deſervedly rejected this ſyrup, as common practice has almoſt done the balſams.

L. Aqua

L. Aqua Sulphurata, *vulgo* Gas Sulphuris. *Sulphurated Water.*

Is made of ſulphur ℔ ſs, burnt in an iron ladle over two pints of water in a cloſe veſſel. This liquor is liable to great uncertainty, in point of ſtrength, as the water will be impregnated with a greater or leſs quantity of acid, according as the proceſs is more or leſs ſkillfully managed. It likewiſe varies greatly after it has been kept ſome time, from what it was at firſt when newly prepared. It is highly volatile and pungent, and ſmells like the fumes of burnt ſulphur; in time the part, upon which its volatility depends, is loſt, and the liquor becomes undiſtinguiſhable from water acidulated with common oil of vitriol.

Tinctura Sulphuris, Tincture of Sulphur, is made of the liver of ſulphur, digeſted with four times its quantity of ſpirit of wine. It has a gold colour, a hot aromatic taſte; and ſtrong, not very offenſive ſmell; is a warm, attenuating aperient, and antiacid medicine; is given in all intentions where the former balſams are uſed, and is much pleaſanter to take, and mixes with any liquor, though canary is the beſt; a mixture of one part of the tincture with three parts of ſpirit of wine, in a doſe of gut. 30 or 40, is a powerful diaphoretic; and a liquor compoſed of this and camphor, ſurpriſingly takes off the pain of the gout, by bathing the feet with it. There is a vulnerary balſam made of four parts of liver of ſulphur, one of myrrh, and half that quantity of ſocotorine aloes beat into a fine powder, and digeſted with three times the quantity of balſam of turpentine, till the oil ſimmers, and the other ingredients are diſſolved; the balſam, when cold, is ſtrained off for uſe. Quincy ſays, this balſam is good for the cure of wounds and ulcers.

L. E. Spiritus Sulphuris per Campanam. *Spirit of Sulphur by the Bell.*
D. gut. 3 to 10.

This ſpirit is diſtilled from ſulphur. There is no real difference between the ſpirit of vitriol, and the ſpirit of ſulphur: all the difference that is, ariſes from the variation of the proportion of heterogeneous matter. The acid of ſulphur united with iron or copper, forms a true vitriol; and the acid of vitriol, combined with inflameable matters, produces ſulphur. It is a powerful acid; its operation is chiefly diuretic; it is more commonly preſcribed to give a palatable acidity to ſome medicines, than to anſwer any intention by its own proper virtues.

Sal Sulphuris, *Salt of Sulphur*, is a reſolution of ſal polychreſton in half its quantity of ſpirit of ſulphur, evaporated till a pleaſant acid ſpirit only remains. This is not, ſtrictly ſpeaking, the ſalt of ſulphur, but nitre fixed by ſulphur, and afterwards impregnated with its ſpirit. It is diuretic, and, in large doſes, cathartic, as moſt ſalts are; it is diuretic, when the doſe does not exceed ʒi; and cathartic, when given in a doſe of ʒſs diſſolved in broth, or any other warm liquor.

L. E. Sal Absinthii. *Salt of Wormwood.* D. gut. 2 to ʒi.

Is a fixed alkaline ſalt, made by reducing the plant to aſhes, then mixing them with a ſufficient quantity of water, and evaporating the liquor till the dry ſalt remains behind. This, as all other alkaline ſalts, has an acrimonious fiery taſte, liquifies all the animal juices except milk; taken into the body, it ſtimulates and deterges the ſolids; attenuates the fluids; and diſſolves viſcid tenacious matter, and thereby opens obſtructions of the veſſels, and promotes all the natural ſecretions. A dilute ſolution of it, drank in bed, generally excites a copious ſweat; and, by walking in the cool air, its action is determined to the kidnies: taken for ſome time, in proper doſes, it proves an excellent remedy for coſtiveneſs, eſpecially if a few grains of aloes be occaſionally interpoſed; it has the advantage over all other laxatives and purgatives, that when the complaint is once removed, it is not apt to return. It is very ſerviceable in cold phlegmatic habits, and where acidities abound in the *primæ viæ*, for it powerfully abſorbs acids, and unites with them into a mild, aperient, neutral ſalt. All alkaline ſalts are hurtful, in a colliquated, acrimonious ſtate of the fluids, where there is any inflammation; and formerly they were judged prejudicial in any tendency to putrefaction; but it hath been ſince found that putrefaction is prevented, or retarded, by all alkaline matters, even by fixed and volatile alkaline ſalts.

L. Lixivium Saponarium. *Soap Leys.*

Is made of equal weights of Ruſſia pot-aſh and quick-lime, with as much water as will ſlake the lime, and diſſolve the ſalt; the ley is then ſuffered to ſettle, and is poured off into another veſſel, and if there is occaſion, is filtrated for uſe; a pint of this ley ſhould exactly weigh ſixteen ounces. Quick-lime greatly increaſes the ſtrength of alkaline ſalts; hence this ley is much more acrimonious, and acts more powerfully as a menſtruum on oils, fats, &c. than a ſolution of pot aſhes alone.

L. E.

L. E. Spiritus Salis Marini Glauberi. *Glauber's Spirit of Sea Salt.* D. gut. 10 to 60.

Is obtained by diſtillation of ſea ſalt, ſtrong ſpirit of vitriol āā ℔ 2, p. water ℔ 1 m. It is the weakeſt of the mineral acids, but ſtronger than any of the vegetable; is uſed chiefly as a menſtruum for other preparations; ſometimes it is given internally, properly diluted, as an antiphlogiſtic, aperient, and diuretic.

L. Spiritus Salis Marini Coagulatus. *Coagulated Spirit of Sea Salt.*

Is made of Glauber's ſpirit of ſalt, with a lixivium of any alkaline ſalt dropt into it, till the effervescence ceaſes, then the mixture is evaporated to dryneſs. It differs not from common ſalt in any property, which a ſlight addition of acid ſpirit will not give the latter.

E. Spiritus Salis Dulcis. *Dulcified Spirit of Salt.*

Is obtained from a digeſtion and diſtillation of three parts of rectified ſpirit of wine, and one part of the ſpirit of ſalt. It was formerly held in eſteem againſt weakneſs of the ſtomach, and indigeſtion, but at preſent is little uſed.

Spiritus Salis, *Spirit of Salt*, was diſtilled from ſea ſalt with thrice its quantity of powdered bricks; it was given in fevers, obſtructions of the liver and ſpleen, and was ſaid to be good in dropſies and jaundice: but the Edinburgh College has now laid it aſide.

L. Aqua Fortis. E. Aqua Fortis Simplex. *Simple Aqua Fortis.*

Is obtained by diſtillation of nitre, green vitriol uncalcined, āā ℔ 3, p. green vitriol calcined ℔ 1ſs p. The Edinburgh College directs it to be diſtilled from two parts of calcined vitriol, and one of nitre, reduced to powder.

L. Aqua Fortis Composita. *Compound Aqua Fortis.* E. Aqua Fortis Duplex. *Double Aqua Fortis.*

Is obtained by diſtillation of ſingle aqua fortis ℥ 16, ſea ſalt 31. The Edinburgh College directs their double aqua fortis to be made up of green vitriol calcined, nitre reduced to powder, and powdered clay āā p. æ. mixed well together, and diſtilled in an earthen retort, as before. None of theſe waters are uſed in phyſic, but as a menſtruum for other waters.

E. Aqua Regia.

Is obtained by diſſolving in a ſand heat of ſal ammoniac ℥1, with ℥4 of ſpirit of nitre, or double aqua fortis. It is only uſed as a menſtruum for certain ſubſtances.

E. Mercurii Solutio. *Solution of Mercury.*

This ſolution is made by digeſting pure quick-ſilver in a ſand heat, with an equal quantity of double aqua fortis. If the whole is deſigned to be ſuſpended, a proper quantity of water is added when the mercury diſappears. This proceſs gives a limpid ſolution of mercury; it is highly cauſtic, ſo as ſcarce to be touched; ſtains the ſkin purple or black, and is only deſigned as preparatory to the following proceſſes.

E. Calx Mercurii. *Calx of Mercury.*

Is only a quantity of the former ſolution evaporated till a white dry maſs remains: it is very improperly called a calx, being in reality only a ſolution of mercury, and is the moſt ſoluble of any that can be made of it; it is violently corroſive, and is rarely made uſe of any otherwiſe, than for making ſome of the following preparations.

L. Mercurius Calcinatus. *Calcined Mercury, commonly called Precipitate per ſe.*

E. Mercurius Calcinatus, *vulgo* Præcipitatus Ruber. *Calcined Mercury, commonly called Red Precipitate.* D. gr. 1 to 6.

Is made of purified quick-ſilver, put into a glazed veſſel, in a ſand heat for ſome months, till it is calcined into a red powder. The Edinburgh College prepares their red precipitate by calcining the calx of mercury, in a crucible, till it changes its white colour into a brown, from that to a yellow, and laſtly, into a deep red powder for uſe. This preparation of mercury is by ſome highly eſteemed in venereal caſes, and is ſuppoſed to be the moſt efficacious and certain of all mercurials. It may be advantageouſly given in conjunction with opiates; a bolus or pill containing from gr. ½ to 2 of this calx; and a quarter, half a grain, or more, of opium, with ſome warm, aromatic ingredient, may be taken every night; thus managed, it acts mildly as an alterative, and diaphoretic, and is of wonderful ſervice in chronical diſeaſes. If you add to the foregoing ingredients gr. 5 or 6 of camphor, you have a medicine of ſingular efficacy in ſcurvies, lues veneria, cachexy, in nervous diſeaſes, &c. If you

you exhibit this calx, by itſelf, in large doſes, as gr. 5 or 6, it proves a rough emetic or cathartic.

L. Mercurius Corrosivus Sublimatus *vel* Albus.

E. Mercurius Sublimatus Corrosivus. *White Mercurial Corroſive, or Corroſive Mercury Sublimate.* D. gr. $\frac{1}{10}$ to $\frac{1}{8}$.

Is made of purified quickſilver ℥40, ground with corroſive ſublimate mercury already made, till the quickſilver is divided into ſmall grains, and then ground a ſecond time with ℥28 of nitre, and then with ℥33 of ſea ſalt, then ℥66 of calcined green vitriol is added, and the trituration continued a little longer, and the mixture is put into a glaſs matraſs, and ſublimed. The Edinburgh College prepare their ſublimate of the calx of mercury, and decrepitated ſea ſalt ā ā p. æ. powdered, mixed and ſublimed, till all the ſublimate has aroſe in a white cryſtalline maſs, which is ſeparated from the red ſcoriæ, and purified, if needful, by a ſecond ſublimation. Sublimate, made in either of theſe ways, differs not; for the vitriol, and the baſis of the nitre, and ſea ſalt, ſerve only as convenient intermediums for facilitating the union of the mercury with the marine acid, and as a ſupport for the ſublimate to reſt upon, to aſſume the form of a placenta, or cake; it is nothing elſe but mercury united with a large quantity of marine acid, it proves a moſt violent eſcharotic, and eats away proud fleſh, and preſently corrupts and deſtroys all the parts of the body it touches. A ſolution of one drachm of it, in a quart of water, is made uſe of to keep down proud fleſh, and cleanſe foul ulcers; and a more dilute ſolution of it is uſed as a coſmetic, and for deſtroying cutaneous inſects; but a great deal of caution is needful, even in the external uſe of it. If you diſſolve ʒſs of it in ℔ i of lime water, the ſolution is called *Phagedenic water*, which is uſed as the former to waſh ulcers, &c. Some have ventured to give it internally, from gr. $\frac{1}{10}$ to $\frac{1}{8}$. Boerhaave ſays, if gr. i of it is diſſolved in ℥i or more of water, and ʒi of this ſolution, ſoftened with ſyrup of violets, and taken twice or thrice a day, it will perform wonders, in many caſes reputed incurable. The corroſive quality of ſublimate may be deſtroyed either by combining it with ſo much freſh mercury as the acid is capable of taking up, or by ſeparating a part of the acid by means of alkaline ſalts, &c. Our apothecaries and chemiſts are ſeldom at the trouble of making this preparation: the greateſt part of what is uſed here comes from Venice and Holland, &c.

L. Mer-

L. Mercurius Dulcis Sublimatus.
E. Mercurius Sublimatus Dulcis. *Dulcified Mercury Sublimate.*
D. gr. 2 to ℈1.

Is made of corroſive mercury ſublimate powdered ℔ 1 p. purified quickſilver ℔ 9, digeſted with a gentle heat, till united; the heat being increaſed, the ſublimation is repeated ſix times: if the mercurial globules do not perfectly unite with the ſublimate, after the firſt ſublimation, the trituration, and digeſtion, is again repeated. The Edinburgh College makes their mercurius dulcis of corroſive ſublimate ℥ 4, triturated in a glaſs veſſel, with quickſilver ℥ 3, mixed till the quickſilver diſappears, and then ſublimed three times; after the firſt ſublimation you throw away the red powder, found at the bottom of the veſſel, and alſo the whitiſh one that ſticks about its neck. The dulcification, or abatement of the corroſive quality of the ſublimate, is entirely owing to a combination of ſo much freſh mercury as is capable of being united with it; and by whatever way this combination is effected, that preparation will be ſufficiently dulcified; trituration and digeſtion promote the union, whilſt ſublimation tends to diſunite them; it may therefore very reaſonably be doubted, whether repeated ſublimations are of any ſervice to this medicine; ſeeing the corroſive quality of the ſublimate, which depends upon the acid it contains, is not corrected by having its ſpicula broken by trituration, but by being neutralized with a due quantity of mercury, and thereby rendered inactive. There is nothing more neceſſary to render this preparation ſufficiently dulcified, but a perfect union of the quickſilver with the ſublimate; when it is properly prepared it is perfectly inſipid to the taſte, and indiſſoluble in water, if it is in any degree acrid, boiling it ſometime in water, all that part in which its acrimony conſiſts, will be intirely diſſolved and ſeparated from it. If the ſublimation is repeated ſeven times, the preparation is called *Calamelas*, or *Aquila Alba*. But two ſublimations, effectually done ſo as to obtain an entire union of the corroſive with the quickſilver, will produce as perfect and mild calomel as ſeven ſublimations; nay, I may venture to ſay, a better preparation than ſeven ſublimations can produce: and if the ſublimate and quickſilver are perfectly united by means of trituration, which is not impoſſible, the preparation then will be in its greateſt purity.

Mercurius Dulcis is the beſt, ſafeſt, and moſt certain mercurial preparation that pharmacy has yet produced, and perhaps as perfect a medicine as that

ſimple

ſimple is capable of being made; all that mercurials are capable of performing, except that of an emetic, in which caſe turpeth mineral, &c. muſt be uſed, may be effected by it. When it is given in order to raiſe a ſalivation, the doſe may be from gr. 15 to ℈1, in form of a bolus or pills, taken every night, till the ptyaliſm begins; but even for that intention, 'tis better to give it in ſmaller doſes, which if duly continued, will as certainly raiſe a ſpitting, as giving it in larger doſes; all purges, or whatever may conduce to promote looſeneſs, are carefully to be avoided. When it is given as a cathartic, it is neceſſary to join with it ſome other purgative medicines, in order to determine its action to the inteſtinal glands. The doſe in this caſe may be gr. 10, with half the uſual doſe of the other purgative, which you join with it. As an alterative, and diaphoretic, it is given in doſes of gr. 6, 8 or 10; and a gentle purgative may be interpoſed, once after every third doſe, to prevent its affecting the mouth; it anſwers, however, much better when given in ſmaller quantities, as gr. 1, 2 or 3, every night and morning, in conjunction with ſuch ſubſtances as determine its action to the ſkin, as the extract or reſin of guaiacum, valerian, Venice treacle, camphor, antimonial wine, &c. The patient ſhould keep moderately warm, and drink liberally of warm diluting liquors: if the leſſer doſes are continued for any conſiderable time, we ought to give a gentle carthartic now and then. By this method of managing it, obſtinate, cutaneous, and venereal diſtempers, &c. which reſiſt ſalivations, and all other means now in practice, may be ſucceſsfully cured, without any remarkable increaſe of the ſenſible evacuations; leproſies, ſcorbutic eruptions, and almoſt all diſeaſes of the ſkin, yield to this method of treatment. The uſe of mercury, as a ſudorific, is only where a gentle increaſe of perſpiration is required, and not a copious ſweat, which it is not ſo well fitted to produce; for the benefit ariſing from this practice, in moſt caſes, depends rather on determining the mercury to the ſkin, in order to act there, than on the ſecretion excited by it: the doſe in this caſe may be gr. 3, every night, with a ℥2 of the extract of guaiacum, &c. given at different times: it is neceſſary to keep warm, and drink plentifully of roſemary and lavender tea, &c. with coffee to breakfaſt. If the mercury has a tendency to paſs too much by ſtool, a little of the bark may be occaſionally given. It is good againſt worms in children, and purges thoſe ſlimy humours from which ſo many diſeaſes, eſpecially of children, ariſe; and children will bear a pretty large doſe without being griped by it; the doſe may be from gr. 1 to 8.

L. E.

L. E. Mercurius Præcipitatus Albus. *White Precipitate of Mercury.*
D. gr.2 to ℈1.

Is made of ſublimate corroſive mercury, with an equal quantity of ſal ammoniac, diſſolved in water; then filtrated, and precipitated with a ſolution of any fixed alkaline ſalt; and the precipitated powder, being waſhed in water, till perfectly ſweet, that is inſipid, and void of acrimony, is kept for uſe. The Edinburgh College directs their white precipitate to be made by diſſolving ſublimate corroſive mercury, in a ſufficient quantity of hot water, to which the ſpirit of ſal ammoniac is ſlowly and cautiouſly added, till the white powder precipitates; which is waſhed with freſh parcels of warm water, and kept for uſe. This powder was called in the former Edinburgh Pharmacopœa, *Mercurius Præcipitatus dulcis, ſweet Precipitate of Mercury.* The ſal ammoniac, and ſpirit of ſal ammoniac, are uſed in order to promote the ſolution of the ſublimate. Theſe preparations are ſeldom made uſe of for internal purpoſes; they are generally mild and ſimilar to the calomel in their operation, but leſs certain, and ſafe; they are chiefly made uſe of at preſent in unguents, &c. for the itch, and other cutaneous diſeaſes; but even the uſe of theſe unguents, and pomatums, ſometimes betray perſons into a ſalivation, contrary to their intention; therefore due care ſhould be taken that the mercury don't paſs that way, by keeping the body lax, and giving ſuch things inwardly as lay hold of the mercurial particles, and carry them another way.

The *Mercurius Præcipitatus Albus, White precipitate Mercury*, of the former Pharmacopœa of Edinburgh, was made of a ſolution of mercury, in very ſtrong brine of ſea-ſalt, poured ſlowly upon it, till all the quick-ſilver was precipitated, in form of a very fine white powder, which is waſhed in warm water, till the water comes off without any acrimony; the powder then is gently dried, between folds of paper, for uſe. This powder is now laid aſide, it very much differs from the former; and is ſo far corroſive, as to be chiefly in uſe among Farriers as an eſcarotic; is very rarely internally made uſe of in phyſic; as mercurius dulcis produces all the good effects that this can be ſuppoſed to do, with greater certainty and ſafety; for this preparation often occaſions vomiting, and greatly diſorders the conſtitution, though given in a doſe of two or three grains.

L. Mer-

L. Mercurius Corrosivus Ruber. *Red Corroſive Mercury.* D. gr. ½ to 3.

Is made of purified quickſilver, compound aqua fortis āā p. æ. calcined till the dried maſs has acquired a red colour. This medicine is very uncertain in point of ſtrength, which depends upon its containing more or leſs of the acid. The ſurgeons eſteem it as a good eſcarotic, and it is much uſed by them for that purpoſe, with baſilicon, and other dreſſings, for conſuming fungous fleſh in ulcers, &c. alſo in unguents for the itch, and other cutaneous foulneſſes; but it ſhould be uſed with caution. Some have ventured to exhibit it internally, in venereal, ſcrophulous, and in other obſtinate, chronical diſeaſes; but it is rarely ventured upon internally, by any, but empirics, and ignorant bold practitioners, who never had any credit, therefore have none to loſe. The milder mercurials, if properly managed, are capable of anſwering all that can be expected from this, without occaſioning violent anxiety, tormina of the bowels, and other ill conſequences, which the beſt management can ſcarcely prevent, when this medicine is uſed.

L. Mercurius Corallinus. *Coralline Mercury.* D. gr. 1 to 3, or more.

Is made of red corroſive mercury, digeſted for two or three days in a gentle heat, with thrice its weight of rectified ſpirit of wine; the ſpirit is ſet on fire, and the powder continually ſtirred, till the ſpirit is burnt out. In this proceſs the corroſive is rendered ſomewhat milder, as a part of the acid is diſſipated by the heat of the burning ſpirit, though little, if any, is taken up in digeſtion; but the preparation, after all the trouble, is ſcarce worth retaining, and hardly ſafe for internal uſe. A few grains of it generally prove cathartic, or emetic, or both, and ſometimes occaſion violent ſymptoms.

Arcanum Corallinum, Coralline Secret, D. gr. 8. Is made of red mercurial corroſive ℥5, ſpirit of nitre ℥8, put into a retort; the ſpirit being diſtilled off, is returned with ℥4 more, and drawn off as before: this operation is repeated a third time, and the red powder, that remains, is put into a crucible, and kept in a warm red for ſome minutes, and then boiled in ℔3 of water; when the water is poured out, and the powder dried, there is ℥12 of tartarized ſpirit of wine diſtilled from it, after having twice cohobated the ſpirit; then the powder is digeſted in the ſame quantity of freſh tartarized ſpirit of wine, and when cold, the ſpirit is decanted, and the powder dried for uſe. This proceſs is taken no notice of by the College, and indeed it merits none, for it is both

tedious, uncertain, and injudicious; for whatever the cohobation of the ſpirit of nitre communicates to the mercury, is reſolved and ſeparated by the water; and if a ſtrong fire is not kept up, after the laſt diſtillation, all the mercury will be diſſolved in the water, which will not greatly differ from the ſolution of mercury already mentioned. It is recommended in the gout, dropſy, ſcurvy, itch, venereal infection, &c. It operates chiefly by ſtool, and is by ſome eſteemed the beſt and ſafeſt of all the tribe; but the ſafety of it is ſo uncertain, as not to induce judicious phyſicians to make much uſe of it when others can be had.

Pulvis Principis, *Prince's Powder*, is made of red mercurial corroſive ℥ß, digeſted in two quarts of almoſt boiling water; which, after twelve hours, is poured off, and the operation, with freſh parcels of water, thrice repeated; then the dried powder, being ground with double its weight of fixed alkaline ſalt, is digeſted as at firſt, in freſh water, till it becomes inſipid; then it is dried, and boiled in ſpirit of wine; which, when cold, is decanted, and the dry powder kept for uſe. This powder is ſaid to be good in venereal and chronical diſeaſes; it differs little from the preceding, and generally works both by ſtool and vomit.

Panacea Mercurii Rubra, *Red Panacea of Mercury*, is made of red mercurial corroſive, digeſted with eight times its weight of water, which is poured off; and the powder, being dried, is digeſted with eight times its weight of ſpirit of wine; and, when the ſpirit is decanted off, twice its weight of tincture of ſulphur is burned upon the calx; which is afterwards digeſted with freſh ſpirit of wine, and then exſiccated for uſe. The four foregoing preparations are nearly the ſame, the three laſt are entirely neglected by the College, and are indeed much too trifling to deſerve the pains taken about them; they are only deſigned to leſſen the quantity and pungency of the ſalts, which the precipitate received from the aqua fortis in making; and are perhaps farther diveſted of the acid, and rendered milder in their operation than the *Mercurius Corallinus* of the College, but have this troubleſome inconvenience attending them, that the quantity of acid, ſeparated in the troubleſome digeſtions, &c. varies according to the different circumſtances in the operation. Theſe preparations are by ſome mightily eſteemed in venereal caſes; the laſt commonly works by ſtool, but will ſometimes vomit: all the four ſtand recommended, in ſmall doſes, as gr. 1 or 2, as excellent alterants and diaphoretics; in larger ones they prove emetic and catharthic.

Panacea

Panacea Mercurii, *Mercurial Panacea*, of the former pharmacopœa of Edinburgh, is made of levigated calomel, digeſted with four times as much ſpirit of wine; when this ſpirit is poured off, the powder is dried for uſe. This differs little, if at all, from the calomel; for the ſpirit of wine does not diſſolve any of it. If any part of the calomel remains, not ſufficiently dulcified, it will be diſſolved in boiling water, and the calomel will thereby become milder; but, if the calomel is well made, the mercury and ſpirit of ſalt are ſo cloſely united as not to admit of a ſeparation, either by ſpirit of wine or water; which, in that caſe, will have no effect upon it; and indeed mercurius dulcis, well prepared, needs none of its acid taken from it, being already ſufficiently ſafe, and mild in its operation.

L. Mercurius Emeticus Flavus. *Yellow Mercurial Emetic.*

E. Mercurius Præcipitatus Flavus, *vulgo* Turpethum Minerale. *Yellow Precipitate of Mercury, commonly called Turpeth Mineral.*

Is made of purified quick-ſilver, mixed with twice its weight of the ſtrong ſpirit of vitriol, and diſtilled to dryneſs; then the calx, being ground to powder, and waſhed in freſh parcels of water, till it has loſt all its acrimony, is kept for uſe. The proportion of vitriolic acid, in this preparation, might be conſiderably diminiſhed without injuring the medicine. Turpeth mineral is a ſtrong emetic; and in this intention operates the moſt powerfully of all the mercurials, that can, with ſafety, be given internally; it works ſmartly upwards, though its action is not confined to the *primæ viæ*; for it will, ſometimes of itſelf, raiſe a ptyaliſm, if a purgative is not adminiſtered ſoon after its operation is over; it is reckoned the moſt efficacious of all mercurial preparations in venereal caſes. In violent gonorrhæas, and other venereal caſes, where there is a great flux of humours to the parts, it is of great ſervice, when uſed with caution; the patient ſhould keep very warm, during its operation, where a very quick derivation is required; as in *Hernia Veneris*, *Phymoſis*, *vel Paraphymoſis*, when in a very high degree, nothing can be called in with better ſucceſs than turpeth: it is ſaid to have been uſed with good ſucceſs, in robuſt conſtitutions, againſt leprous diſorders, and obſtinate glandular obſtructions; and may be given as an alterative and diaphoretic, in doſes from gr. 1 to 2. It has been offered as a remedy againſt the hydrophobia, and is ſaid to have performed a cure after the madneſs was begun; gr. 2 are given, every four hours, with a dram of cinnamon, which

raiſes a briſk ſalivation in ſixteen hours: in regard to the certainty of the practice, in human ſubjects, I can ſay nothing; but that dogs may be almoſt infallibly cured by it, I can aver. The water, in which turpeth is waſhed, is, by ſome, externally uſed for the itch, and other cutaneous foulneſſes; the patient, however, ought not to be too free in the uſe of it. The doſe of turpeth may be from gr.1 to 8; but, in moſt caſes, it is beſt to join ipecacoanha with it, as ipecacoanhæ gr.8. turpeth gr.3. This, and all other ponderous preparations, ſhould never be exhibited in a liquid form; but in boluſſes, with conſerve of roſes, &c.

E. Mercurius Præcipitatus viridis. *Green Precipitate of Mercury.*

Is made of corroſive ſublimate mercury reduced to powder ℥4, diſſolved in ℔2 of warm water; to which is added, drop by drop, a tincture, made of copper filings ℥1ſs, digeſted in a matras, with ℥8 of ſpirit of ſal ammoniac, until a deep-blue colour appears; when the precipitate has fallen, it is evaporated in a ſand-heat to dryneſs. This differs from the ſweet precipitate, in containing an admixture of copper, which renders it too rough an emetic to be uſed internally with ſafety: therefore the preſent practice has moſtly laid it aſide.

Mercurius Præcipitatus fuſcus, vulgo Wurtzii, Brown Precipitate, (commonly called *Wurtz's Precipitate*) is made of a ſolution of mercury, made in aqua fortis, and precipitated by the oil of tartar per diliquium; and the powder is edulcorated as the foregoing. This preparation agrees with the ſweet precipitate.

L. E. Cinnabaris Factitia. *Artificial Cinnabar.* D. gr.10 to 31.

Is made of purified quick-ſilver ℥25, ſulphur ℥7, mixed together, and reduced to powder; the ſulphur is previouſly melted before it is mixed with the quick-ſilver. The principal uſe of cinnabar is as a pigment, and to make the common vermilion of the ſhops. It was formerly in great eſteem, as a medicine, in cutaneous foulneſſes, gouty, and rheumatic pains, epilepſies, and in all nervous caſes; but of late it has loſt much of its reputation; it ſeems to be nearly ſimilar to *Æthiops mineral*; is very mild, and never occaſions any ſalivation; for the fire breaks the union of the ſulphur and the mercury, and the latter is reſolved into fume. It is given to young children as a ſafe medicine againſt worms, all crudities, and acrimony of the humours.

L. E.

L. E. Æthiops Mineralis. *Æthiops Mineral.* D. ℈ı to ʒ2.

Is made of purified quick-ſilver, and flowers of ſulphur unwaſhed āā p. æ. ground together untill they are united. This is one of the moſt inactive of the mercurial preparations; ſome think that it poſſeſſes extraordinary virtues, and is an excellent remedy, both from its weight and the cleanſing nature of the ſulphur; moſt people think it a medicine of ſome efficacy; but what can be expected from the common doſes of gr. 8, or 10, to ℈ı; when it has been given in doſes of ſeveral drams, and continued a conſiderable time, without producing any remarkable effects. As ſulphur abates the power of all the more active minerals, ſo it ſeems to be reſtrained by them from operating in the body: therefore, as *Boerhaave* juſtly obſerves, who can know the effects of a ſubſtance, which, ſo long as it remains compounded, ſeems very inactive, and may lie long in the body; but, when it is decompounded, is very powerful?

E. Mercurius Saccharatus. *Sugared Mercury.* D. gr. 3 to ℈ı.

Is made of pure quick-ſilver, brown-ſugar candied āā ʒſs, eſſential oil of juniper-berries, gut. 16, ground together till the mercury diſappears. The ſugar, in this preparation, divides the mercury, and the oil keeps it divided; it is an alterative; and may be given in water, or other proper vehicle.

Mercurius Alkalizatus *Alkalized Mercury.* D. gr. 2 to ℈ı.

Is made of prepared crabs eyes ʒ5, pure quick-ſilver ʒ3, ground together till the mercurial globules diſappear. This medicine has not yet found a place in the Pharmacopœa of the College, though it very well deſerves it; is much eſteemed as a uſeful alterative, eſpecially in ſcorbutic caſes; and has ſometimes ſucceeded when other mercurials have failed; good in cutaneous and venereal caſes; and in all others, where mercurial alteratives are indicated. It is proper to join a gentle cathartic to it.

PILULÆ, &c.

E. Pilulæ Æthiopicæ. *Æthiopic Pills.*

Are made of quick-ſilver ʒ6, Spaniſh ſoap, reſin of guaiacum āā ʒſs, ground together till the mercurial globules entirely diſappear; then half an ounce of the

the golden ſulphur of antimony is added, and the whole made into a maſs of pills, with common ſyrup. The ſoap, here added, is merely to promote the diſſolution of the pills in the ſtomach; they are uſeful alteratives, both in cutaneous and venereal diſeaſes.

L. E. Pilulæ Ecphracticæ. *Deobſtruent Pills.*
E. Pilulæ Ecphraticæ purgans. *Purging Deobſtruent Pills.*
D. gr. 15 to ℈1.

Are compoſed of aromatic pills ℥3, rhubarb, extract of gentian, ſalt of ſteel āā ℥1, ſalt of wormwood ℥ſs, with a ſufficient quantity of the ſolutive ſyrup of roſes. The Edinburgh College makes theſe pills (formerly called *Pilulæ Ecphracticæ cum Aculeo*) of ſocotorine aloes, extract of black hellebore, ſcammony āā ℥1, gum ammoniac, reſin of guaiacum āā ℥ſs, vitriolated tartar 32, eſſential oil of juniper-berries 31, with a ſufficient quantity of ſyrup of buckthorn. Theſe pills are well calculated for the intention expreſſed in their title. Thoſe of the Edinburgh College are conſiderably the ſtrongeſt, and ſhould only be given in doſes from gr. 4 to 10, as alteratives and deobſtruents; a ſcruple, or half a dram, proves purgative.

L. E. Pulvis Ari compositus. *Compound Powder of Arum.* D. ℈1 to 2.

Is made of arum root, freſh dried ℥2, yellow water flag root, burnet, ſaxifrage root āā ℥1, crabs eyes prepared, cinnamon āā ℥ſs, ſalt of wormwood 32, beat into powder. The Edinburgh College directs this powder to be made of arum root freſh dried ℥2, calamus aromaticus root, burnet, ſaxifrage root āā ℥1, canella alba 36, vitriolated tartar 32, mixed all together This is a good ſtomachic, and is very ſerviceable in ſluggiſh temperaments, where viſcid, phlegmatic, and crude acid juices abound in the *primæ viæ*; it diſſolves and promotes the expulſion of noxious humours; excites appetite; opens obſtructions, both of the viſcera and remoter glands; and is uſeful in ſcorbutic caſes.

L. Hiera Picra. *Holy Bitter.*
E. Pulvis Hieræ Picræ. *Powder of Holy Bitter.*

Is made of the gum, extracted from ſocotorine aloes, ℔ 1, canella alba ℥3, ſeparately reduced to powder, and then mixed. The Edinburgh College directs this powder to be made of ſocotorine aloes ℥4, Virginian ſnake-root, ginger

ger āā ℥ſs mixed together. This powder formerly contained ſeveral other ingredients, as cinnamon, zedoary, aſarum, and cochineal: the canella alba ſupplies the place of the aromatics; but the addition of aſarum, which is a pungent, penetrating ſubſtance, perhaps promotes and extends to farther purpoſes, than the aloes alone is capable of anſwering. This powder is uſed both as a cathartic and as a ſtimulus, but is rarely uſed in this form on account of its nauſeouſneſs.

L. Trochisci e Sulphure. E. Trochisci Diasulphuris. *Troches of Sulphur.*

Are made of the flowers of ſulphur waſhed ℥2, double refined ſugar ℥4, beat together, and formed into troches, with mucilage of quince-ſeed. The Edinburgh College make their troches of flower of ſulphur ℥1, flowers of benzoin 31, white ſugar ℥3, mucilage of gum tragacanth a ſufficient quantity, to make them into troches. Theſe compoſitions are agreeable forms for exhibiting of ſulphur: the benzoin renders the medicine more efficacious as a pectoral.

E. Lohoch Saponaceum. *Saponaceous Lohoch.*

Is made of Spaniſh ſoap 31, oil of almonds ℥1, ſyrup of the juice of lemons ℥1ſs, mixed together. This lohoch gently looſens the belly, and is a good pectoral in diſorders of the breaſt.

FORMULÆ EXTEMPORANEÆ.

℞ Vin. antimon. gut.40, aq. pur. ℥2, f. hauſtus

℞ Sapon. caſtil. 31, ſolve in aq. fontan. tepid. ℥2ſs, adde aq. junip. comp. ſyr. ex alth. āā 32 m.

℞ Mercur. dulc. ſubl. gr. 10, extr. lign. guaiac. mol. 31, m. f. pil. D. gr. 10.

℞ Mercur. ſubl. corroſ. gr. 6, ſpt. vin. gall. ℔ 1, f. ſolut. doſ. cochl. 1.

℞ Vin. antimon. 36, tinct. thebaic. 32, m. f. tinctura.

℞ Argent. viv. ℥3, rad. jalap. pulv. ℥1 — zingib. 32, ſyr. ex alth. q. ſ. m. f. pil.

℞ Pil.

℞ Pil. mercur. gr. 10 omni nocte. ſumend.

℞ Sulphur. aurat. antim. mercur. dulc. ſubl. āā 32, quam optime lævigentur ſupra marmor. gum. ammon. 34, balſam. peruvian. q. ſ. f. pil. D. gr. 8.

℞ Sapon. caſtil. ℥ſs, gum guaiac. ℈4, ſyr. ſimpl. q. ſ. m. f. pil. med. D. 4, v. 5

℞ Tartar. emetic. gr. 2, magn. alb. 3ſs, contere diu in mort. marmor. ut f. pulv. ſubtiliſſ. doſ. gr. 4 ad 10.

℞ Extr. cicut. ℥1, pulv. folior. cicutæ q. ſ. f. pilulæ doſ. gr. 5, ad 31 uſque.

℞ Merc. dul. ſubl. gr. 6, conſerv. roſar. 3ſs, f. bolus.

℞ Extract. cicut. 34, extr. cort. peruvian. dur. 33, camphor. 31ſs, conſerv. flaved. cort. aurant. q. ſ. f. pil.

℞ Æthiop. mineral. cinnab. antimon. āā 36, ſal. ſuccin. tartar. vitriol. crem. tartar. āā 31ſs, pulv. ari rad. 32, mart. cum ſulph. præp. 33, ſyr. ex alth. q. ſ. f. elect.

℞ Antimon. illot. 33, optime lævigat. cum reſin. guaiac. 32, ol. e rad. ſaſſaf. eſſ. gut. 6, conſerv. roſar. rub. ℥iſs, ſyr. balſam. q. ſ. f. elect.

℞ Pulv. hellebor. nig. 33, myrrh. 32, conſerv. folior. cochl. hort. ℥2, ſyr. zingib. q. ſ. f. elect.

℞ Ipecacon. gr. 4, ſpec. aromatic. gr. 15, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Reſin. guaiac. gr. 10, mercur. dulc. gr. 1, ol. terebinth. gut. 1, confect. cardiac. q. ſ. f. bolus.

℞ Scill. recent. gr. 5, ſpec. aromatic. gr. 10, ol. e fol. menth. piper. eſſ. gut. 1, m. f. bolus.

℞ Extr. guaiac. ℈1, ſal. C. C. gr. 7, ſyr. ſimpl. q. ſ. f. bolus.

℞ Æthiop. mineral. 32, ceruſſ. antimon. 31, gum. guaiac. ℈iſs, extr. hellebor. nig. q. ſ. f. pil.

℞ Argent. viv. extr. lig. guaiac. dur. āā ℥iſs ol. e rad. ſaſſaf. eſſ. gut. 2, terebinth. q. ſ. f. pil.

℞ Mercur. dulc. gr. 10, extract. guaiac. lig. moll. 31, ol. e rad. ſaſſaf. eſſ. gut. 10, m. f. pil.

℞ Mercur.

℞ Mercur. dulc. gr. 10, camphor. ℈ſs, extr. lig. guaiac. mol. q. ſ. f. pil.

℞ Mercur. calcin. extr. thebaic. āā gr. 2, balſ. peruv. q. ſ. f. pilulæ.

℞ Mercur. dulc. gr. 10, antimon. illot. ʒi, balſam. peruvian. q. ſ. pil.

℞ Mercur. dulc. ſulphur. antimon. præcip. āā gr. 5, aloes gr. 15, ſyr. balſam. q. ſ. f. pil.

℞ Mercur. dulc. tartar. emetic. āā gr. 2, elect. e ſcordio q. ſ. f. pil.

℞ Mercur. dulc. camphor. āā gr. 15, tartar. emetic. gr. 6, extract. thebaic. gut. 4, extr. rad. enul. campan. q. ſ. f. pilulæ.

℞ Argent. viv. ſulp. antimon. præcip. āā ℥ii, gum. guaiac. ℥i, m. in mortar. marmor. cui adde ſapon. caſtil. ℥ii, ſyr. balſ. q. ſ. f. pil.

℞ Argent. viv. ℥i, ſpt. terebinth. gut. 15, ſyr. e ſpin. cervin. ʒii, pulv. rad. glycyrrhiz. q. ſ. f. pil.

℞ Argent. viv. gr. 7, mercur. corallin. gr. 2, extr. opii gr. i, ſyr. ſimpl. q. ſ. f. bolus.

℞ Argent. viv. ſyr. e ſpin. cervin. āā ʒiv, digerentur in mortar. marmor. donic. penitus evaneſcant globuli argent. viv.; dein adde mel. deſpum. ℥ſs, pulv. jalap. ʒv, m. f. pil.

℞ Gum. guaiac. ℈ſs, æthiop. mineral. ʒſs, elect. lenitiv. ʒi, ſyr. ſimpl. q. ſ. f. bolus.

℞ Æth. mineral. antimon. āā ℈i, conſerv. cochlear. hort. ℈ſs, ſyr. ſimpl. q. ſ. f. bolus.

℞ Conſerv. flav. cort. aurant. ſpong. uſt. āā ʒi, ſyr. ſimpl. q. ſ. f. bolus, ter in die cap.

℞ Argent. viv. ʒv, terebinth. argentoratenſ. ʒii, ſimul terentur, donic penitus evaneſcant globuli argent. viv.; deinde adde extr. cathartic. ℈ß, pulv. rhabarbar. ʒi, m. f. pil.

SECTION VI.

CHAP. I.

Of DIURETICS.

UNDER this head are included thoſe ſimples, whoſe moſt remarkable properties appear in their increaſing the diſcharge by urine; or which are ſuppoſed to have any power in the removing obſtructions in the urinary paſſages, from what cauſe ſoever, whether humours or gravel. The excretion of the urine is always made through the urethra, into which it flows from the bladder, and diſtils into the bladder from the ureters, which receive it from the pelvis; and comes there from the branches of papillæ, which are the interior ſubſtance of the kidnies. The kidnies are two pretty ſolid, glandular bodies, reſembling a large bean in figure. Some affirm that one kidney only ſecretes urine; becauſe, ſay they, we find a regular and full diſcharge of urine, when one kidney is entirely obſtructed by a calculus; it may be ſo, yet two kidnies are as neceſſary as two eyes. The deſcending aorta, and inferior vena cava, lie between the kidnies pretty cloſe to the bones of the vertebræ, and to each other; the artery being on the left hand, and the vein on the right; each of theſe large veſſels ſends out tranſverſly toward each ſide, commonly one capital branch, which goes to the kidney, and enters the ſinus, or depreſſion thereof, by ſeveral rami: theſe veſſels were, by the antients, termed the emulgent arteries and veins; but are now more properly called *arteriæ venæ renales*; and are covered by a nervous net-work. The blood is brought to the kidnies by the renal arteries; and, what is unfit to paſs through them, returns to the vena cava through the renal veins.

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There is no wonder the diſcharge of urine happens ſo ſoon after drinking, when we conſider, that the blood makes an entire circulation, in a ſound perſon, in about a quarter of an hour: a large draught of liquor immediately increaſes the flux of ſerum to the kidnies; becauſe, by diſtending the ſtomach and bowels, it preſſes upon the blood veſſels of the bowels of the lower belly, and ſo cauſes the blood, with its ſerum, to abound in the other veſſels; ſo the maſs of blood is compelled to a free paſſage, by which it may, in a better manner, flow from the redundant blood, and thus ſeparate the ſerum from itſelf; which, by reaſon of its thinneſs, very eaſily paſſes through the kidnies. The diſcharge of urine, preſently after drinking, is not from the liquor drunk immediately before; but the matter, that exiſted in the ſaid paſſage, is thruſt forward by it. The urine remains in the bladder until its weight, or acrimony, ſtimulates it; then it is voided by the contraction of the muſcles of the lower belly, and of the fibres of the bladder. If inſenſible perſpiration is obſtructed, the ſerum is carried to the lower parts, and the diſcharge is proportionably greater; as we ſee in nervous caſes, bathing in cold water, winter weather, &c.

Urine ſhews a Phyſician the ſtate of the body; and, according to the condition of its parts, varies in its ſubſtance and quality. Stale urine differs from all other putrid ſubſtances in being inoffenſive; whilſt all other corrupted bodies are often the cauſe of putrid and malignant diſeaſes. Urine is of ſeveral different colours, viz. *white*, *thin*, and *limpid*, like water; or *thicker*, like milk; which is commonly a ſign of worms in children; or *yellow*, *red*, *black*, and *morbid*.

Firſt, The cauſe of thin limpid urine is either a weak natural heat, too much drink, or too ſhort a ſtay in the body, through a great laxity of the parts; for then the due chylification, or ſanguification, is not performed; ſo that little or no tincture can be given to the urine: an obſtruction of the paſſages, as in the ſtone in the kidnies: or, laſtly, from the bile affecting the head from its too great rarefaction; as ſometimes ſuddenly happens in fevers; and always forebodes a delirium. The milky urine is cauſed by the mixture of ſome whitiſh humours, as phlegm, chyle, ſeed, or pus.

Secondly, Yellow urine is cauſed by the heat, with which the chyle, being mixed with the blood, is duly concocted. Under this colour are comprehended the *light* and *deep ſtraw*, or amber-coloured urine, ſmooth and equal, with or without ſediment; for ſuch is the urine of ſound perſons, and may be conſidered

as a ſtandard; and is called the natural urine of a healthy perſon. If the degree of heat is more intenſe, then it tinges a linen cloth of a yellow colour, and is a certain ſign of a yellow jaundice, ſcurvy, or ſome putrid diſorders, or malignant fever; for put a little blood into the urine of a healthy perſon, and it will change it into a flame colour, having often a few oily ſpecks on the top; which we often obſerve in the urine of ſcorbutic people.

Thirdly, Red urine is occaſioned by a mixture of blood, or a greater degree of coction; the blood is mixed with the urine, either by its thinneſs paſſing through the kidnies with the ſerum, or by the rupture of a veſſel in the kidnies, bladder, &c. when parts of the ſolids of our body are abraded and rubbed by the vital power, and when the fluids are ſo far diſſolved by continual circulation as to become acrid; then the urine is uſually red, ſmall in quantity, oily, acrid, and terreſtrial.

Fourthly, The *black*, *thick*, and *morbid* urine, and the ſeveral kinds of it, proceed from the very great aduſtion and corruption of the humours in the body, and are mortal, unleſs they are voided upon a criſis; and eſpecially that kind which is of a dark-blue colour. The greeniſh urine is not ſo dangerous, as it may ariſe from a light mixture of the green gall, ſuch as is often found in, and thrown up by the ſtomach.

The natural ſmell of urine is ſtrong, ſulphurious, and offenſive: if it has no ſmell, it is a ſign that it has made too ſhort a ſtay in the body; if it is extremely offenſive to the ſmell, it denotes corruption or ulceration: the taſte of urine is ſalt and nitrous: the quantity, in a healthy perſon, is about a third part of what he drinks; a greater quantity denotes a weakneſs, and too great a laxity of the urinary paſſages; the effect of which is a waſting or contabeſcence, as in a diabetes, unleſs it happens through the coldneſs of the air, obſtructed perſpiration, upon taking ſome diuretics, after ſome ſuppreſſion, from a dropſy, rheumatiſm, or from a criſis of a fever, by which the cauſe of the diſeaſe is often carried off. A ſmaller quantity of urine, unleſs it proceeds for want of drinking, denotes a great heat, evaporating the ſerum, by the breath, ſweat, or inſenſible perſpiration, as we often find in fevers; or elſe from an obſtruction of the urinary paſſages; and there is reaſon to fear the conſequence will be either a dropſy, rheumatiſm, catarrh, anſcites, ſleepineſs, palſy, fainting fits, or ſome other diſorder, according to the part it happens to fall on.

The natural conſiſtence of urine is like that of beer, moderately boiled and fermented. But there are ſeveral kinds of morbid urine that differ from this natural

tural ſtate; it is ſometimes thick, for want of ſerum, or by the mixture of ſome groſs particles, as we ſee in the beginning of fevers. The turbid, or foul, differs from the thick, in being clearer. Thin urine happens from an obſtruction of the urinary paſſages; or from the ſtone in the kidnies; or from a weak natural heat, which does not ſufficiently elaborate the chyle. The urine is tranſparent, when the interſtices, between the ſerous particles of the urine, are leſs filled with certain groſſer particles; and troubled unconcocted urine proceeds from a contrary cauſe. The contents of urine are *general* and *particular*: the general contents are divided into three parts, the hypoſtaſis, eneorema, and nebula: the hypoſtaſis or ſediment is what ſinks to the bottom: the eneorema is what hangs in the middle; and the nebula, or cloud, is what appears upon the top: the hypoſtaſis alone ſhould appear in ſound people; it ſhews that the concoction is ſtill carried on, and ſhould be white, of a ſmooth, ſurface, and equal conſiſtence. If the ſediment is red, it denotes that the nutriment of the body is over much, and too quickly concocted: if it is corrupted, or unequal, it ſhews that the nutritious juice is not equally concocted, or is not of a ſimilar ſubſtance; and therefore not equally comminuted in itſelf. If the ſediment appears in fevers about the fifth, ſixth, or ſeventh day, it is a ſign of health, if there was none before; and if it is even, and not ſcattered: alſo in fevers the eneorema and nebula, about the third day, indicate a cure; which is more confirmed, if they thicken by degrees; and ſometimes they reſemble a ſediment, and are fore-runners of it. If the hypoſtaſis is entirely excrementitious, it is commonly white, rediſh, or yellow.

Now, the general contents of urine conſiſt of a great number of very minute filaments, or certain oblong, and round particles, formed from the chyle and juice, into which our blood is changed, before it yields nouriſhment to the body; which the ſerum of the blood waſhes off, in its tranſcolation, through all parts; and which, being ſeparated in the urine, by a ſpirit and the ſubtile matter, lay hold of each other by their rough and ramous particles; and, being entangled together, according to their own gravity, and that of the part which they conſtitute, they either form the nebula, eneorema, or hypoſtaſis; to which alſo the greater or leſs thickneſs of the urine greatly conduces. The nebula, or eneorema, is formed from this cauſe, viz. the nutritious juice is not enough concocted, nor elaborated into filaments of ſufficient ſtrength and thickneſs, but into lighter and more ſpungy parts, that are ſuſtained by the reſt, or contain other fibrous particles in their pores; which make them denſer and groſſer, and

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hinder their being ſo divided as to form a hypoſtaſis. The particular contents of urine are very numerous, ſuch as ſtone, gravel, pus, blood, caruncles, fat, a mealy and branny ſediment, the greateſt part of which denotes a diſpoſition to the ſtone in the kidnies and bladder. Gravel is not always the fragments of a larger ſtone; but a ſaline concretion in the urine. Fatneſs indicates a waſting of the body, and often floats upon the urine of conſumptive people.

Having now mentioned what was neceſſary, to give a general notion of urine; I come now to treat of thoſe medicines, called diuretics, or promoters of urine; which are moſt excellent medicines, and are of great ſervice in the beginning of moſt diſeaſes; becauſe they carry off with them the humours, and other things contained in them, without any inconvenience, danger, or commotion of the maſs of blood.

To know how a medicine operates to anſwer this intention, is to conſider by what means it comes to be wanted. There are various cauſes of intercepted urine; and there ought to be as many different methods of healing. The paſſages may be in fault from any cauſe, which contracts them, and draws them up too ſtrait; which conſtriction, of courſe, leſſens their diameters; and prevents particles, of the ſame bulk, from paſſing as before: or they may be faulty from too great dryneſs and defect of fluid, which ariſes from acrimony, as in acute diſtempers; or from too great a thickneſs, groſſneſs, and lentor of the fluids, which prevent them from paſſing off this way. The fluids may be too much derived into the other parts. The paſſages, remaining in their natural ſtate, may be obſtructed by the caſual intruſion of particles, too big to go forwards; or by the concretion of particles attracting one another in their progreſs, as infractions from a calculus, or ſome other ſubſtance. There ſometimes happens a palſy of the renal parts, which ſcarce admits of a cure.

From what hath been ſaid it appears, that there are ſeveral ſorts of diuretics. *Firſt*, Thoſe are diuretics which ſoften and lubricate the fibres, that compoſe the urinary glands and canals; by which means they yield and relax into their due dimenſions, and capacities, ſuch as decoctions, emulſions, and oils, taken from vegetables or animals, which were already mentioned under the title of emollients; as decoctions of pellitory, mallows, mercury, oil of olives, oil of the *Palma Chriſti*, turpentine, &c. which ſhould be taken on an empty ſtomach, uſing eaſy motion afterwards in the cool air: they may be injected

injected in form of a clyſter, to foment and mollify the parts; and, being thus adminiſtered, are ſometimes of wonderful ſervice, when other remedies have been tried in vain: they may be applied alſo to the kidnies in form of baths, or fomentations; for experience ſhews us, that thoſe, who are put into baths up to the breaſt, make plenty of urine. The uſe of diuretics of this claſs are ſo great, that they deſerve the firſt place; for if there is any obſtruction, they do not increaſe it like ſtimulators; but remove it by relaxing the veſſels. To this alſo belong all thoſe, which correct or expel the acrid, which excites ſpaſms, of what ſort ſoever the acrid is. Thus terreſtrial bodies, as all fixed and volatile alkalines, are of the greateſt ſervice to infants, that labour under a ſuppreſſion of urine from milk turned ſour; and alſo to hyſterical women.

The *ſecond* claſs contains all thoſe medicines, that either by their attenuating, and deterſive qualities, rarify and thin mucous humours; and adhere to, and carry them along in their paſſage; which all detergents do, and upon that account prove diuretic; or have a power of altering the criſis of the humours, ſo as to fit thoſe to paſs, which could not get through before. Now it is certain, that the thinner ſecretions increaſe in proportion to the blood's fluidity, and velocity; if you dilute the blood, and reduce its ſpherical parts into ſmaller ones, the ſecretion of urine is eaſily augmented, by the relaxation of the renal veſſels; nay thoſe veſſels are always more lax than others, that is, they make leſs reſiſtance to the liquid flowing in, than any other veſſels in our body, as gaping into the open pelvis. But the beſt diluter of the blood is water, which divides its moliculæ, by interpoſing ſome of its own particles; alſo nitre, vegetable acids, whey, butter-milk, &c. dilute the fluids. Again, the excretion of urine is promoted by thoſe medicines, which excite a greater motion, and increaſe the attrition of the veſſels, and ſo promote the comminution of the blood, for the ſwiftneſs of its motion not only keeps the parts more divided, but alſo brings them oftener to the ſecretory orifices, which every where takes off the thinneſt of the blood at that part. Hence we ſee that all medicines, that promote ſweat, promote urine, in ſome meaſure, if not prevented; and on the contrary, if you ſtrongly promote urine, you ſlightly promote ſweating, or at leaſt increaſe inſenſible perſpiration. Some of the viſcid and thicker ſecretions require, from the ſame reaſon, a vaſt check of the blood's motion, before they can be performed; that is, before the blood has obtained ſuch a conſiſtence, by the flowneſs of its motion, that what is to be ſeparated is the thineſt

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at that part; for no other will go off any where. If therefore, from any cauſe whatever, the blood does not move with its due velocity, its parts will attract one another, and make the whole too thick, to part with any thing by the kidnies, or ſo much as it ought. Nature, indeed, ſeems particularly to have provided againſt this inconvenience, by ſo near a ſituation of the kidnies to the heart, the blood's motion cannot be retarded, where it comes to them, unleſs it moves ſlower than the heart itſelf. In this caſe ſuch things prove diuretic, which not only forward the blood's motion, by irritating the ſolids, and quickening their vibrations; but are ſo ſubtile, as to keep the blood in as fluid a ſtate as poſſible. Many of the cardiacs and cephalics come into this rank, becauſe their volatility gives them ſuch properties. But beſides the ſmallneſs and aptitude to motion of ſome particles, which thereby keep the blood fluid; there are others, that do it by their roughneſs and rigidity; for thereby they hinder the particles of blood from coming ſo much into contact as to cohere; and ſuch are the nature of alkaline and lixivious ſalts; which, for this very reaſon, in all ſluggiſh and viſcid habits, prove diuretic, and procure, ſometimes, very large diſcharges by urine. Indeed all ſalts, that are known to us, without exception, as all fixed and volatile alkaline ſalts, all ammoniacal ſalts, which are compoſed of a volatile acid ſpirit, and a volatile alkaline ſalt, fixed and compound ſalts, ſaponaceous bodies made of alkalis with any oil, alſo all oily volatile ſalts and fixed ſoaps, ſuch as may be made of ſalt of tartar, boiled a long time with the oil of olives, or of turpentine, likewiſe ſaline juices of ſea muſcles, oyſters, &c. the vegetable juices of thoſe plants that have little oil, and much eſſential ſalt, the juice of parſley, ſorrel, eryngo, &c. alſo apium, all acrids, which ſtimulate the veſſels, eſpecially thoſe of the kidnies; among the principal are ſome inſects, as ants, cantharides, millepedes, &c. which diſſolve the blood, accelerate its motion, and excite a ſort of artificial fever; all ſalts which diſſolve the blood, and, at the ſame time, increaſe its velocity; hither alſo chiefly belong one or two kinds of ſalts, ſuch as we know to be procured from amber, and vegetables; the ſalt of amber is a ſpecies of rectified, acid, volatile ſalt, and exceeds all others, if given to ℈ı with a regimen. Alſo moderate heat and motion of the body without ſweating. The balſamic aromatics, which conſiſt of ſubtile ſalt, and an involving oil, are reckoned, in a manner, ſpecific diuretics, as ſaffron, rhubarb, caſia fiſtularis, nutmeg, juniper, turpentine, and all native balſams, which not only increaſe the quantity, but change the quality of urine. Saffron and rhubarb give it a flame colour; caſſia, in ſmall doſes,

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turns it green, in a greater quantity, brown, and in a ſtill greater, black; turpentine gives it a ſmell of violets; the balſam of copaiba gives it a bitter taſte.

Another way of forcing urine, is to increaſe the quantity of ſuch ſalts, in the blood, as ſeem fitted, by their ſpecific gravity, to paſs more eaſily by the kidnies, than any where elſe: for the largeneſs and ſwiftneſs of the ſtream, in which the blood comes to them, cannot admit of the ſeparation of any particles, but ſuch as are ſmall and heavy; of which kind are all niterous and acid ſalts: for theſe, joining with the ſerum, cauſe it more plentifully to attract and unite the ſalts, diſperſed in the blood, and help the ſooner upon that account, viz. by adding to their gravities, to determine them through the kidnies into the bladder. But ſuch ſeem to be the moſt natural and ſafeſt medicines for this intention, which have in their compoſitions ſalts near of this kind, and ſomewhat, at the ſame time, ſo emollient, as to guard them againſt vellicating the membranes, and to lubricate and facilitate their paſſage, with what they take of them, into their proper emunctories. Thus all of the mallow kind, and moſt of the ingredients in the ſyr. de althæa, have a great deal of penetrating ſalt, wrapped up in a ſoft mucilaginous juice. If then nature be allowed to be the beſt compounder, thoſe of her productions, which have theſe two properties, ſo well blended together, muſt be the beſt, that can be contrived, for the purpoſes under conſideration: for ſuch plants or ſimples ſeem fitted to anſwer both theſe important intentions at once, of lubricating and relaxing the paſſages, and of precipitating, at the ſame time, the proper fluids through the paſſages. We ought not to be too buſy with ſuch things, as ſtimulate much, and are forcing that way; leſt, inſtead of making a paſſage, thoſe irritations ſhould contract, and ſtraiten what was too narrow before. Therefore we ſhould always join them with ſuch things, as are at the ſame time ſoftening and emollient; that the veſſels may be enlarged, when a greater quantity of fluid is intended to be protruded through them. Diuretics, as I obſerved before, act upon the blood itſelf, which all purges do not; and the blood is more purified this way, than by evacuation by ſtool. Therefore a phyſician, who duly attends to all ſymptoms, may often procure a ſalutary criſis, in violent diſeaſes, by thoſe medicines, without any notable perturbation of the body. Beſides, the kidnies are the beſt ſuppuratory of the blood; becauſe all the thicker parts of the blood may paſs through them.

SIMPLICIA.

FOLIA.

Chamædrys. *Chervil.*

Is grateful both to the palate and ſtomach; is gently aperient and diuretic; excellent in dropſies; promotes a diſcharge of urine when ſuppreſſed; renders it clear when feculent, and turbid, when high and fiery; and renders it of a pale colour: it acts without irritation; and tends rather to allay than excite an inflammation. The doſe is ℥ß or 4 of the juice every fourth hour, and continued for ſome time, either with nitre, or ſyrup of marſhmallows.

Fragaria. *Strawberry Buſh.*

The leaves are ſomewhat ſtiptic and bitter; are good in debility and laxity of the viſcera, and in immoderate ſecretions, or a ſuppreſſion of the natural evacuations depending thereon; good alſo in hæmorrhages, ſuppreſſion of urine, obſtructions of the viſcera, jaundice, &c. The fruit is generally grateful to the palate and ſtomach, abates heat, quenches thirſt, looſens the belly, and promotes urine. The leaves are ſometimes uſed in gargariſms, for ſore mouths, quincies, and ulcers of the throat.

Petroselinum. *Parſley.*

The ſeeds have an aromatic flavour, and are occaſionally made uſe of as carminatives. The root is one of the five opening roots, and in this intention is ſometimes uſed as an ingredient in apozems, and diet drinks; they abſterge ſlime and viſcid adheſions from the ſtomach and bowels, cleanſe the paſſages, keep the juices fluid, and drain off bad humours from the blood by urine.

Saxifraga. *Saxifrage.*

Has a nauſeous bitter taſte, and little ſmell; it was formerly accounted aperient, diuretic, and lithontriptic.

Bardana Major. *Burdock.*

The ſeeds have a bitter ſubacrid, ſomewhat aromatic taſte; are good diuretics given in form of emulſion, or in powder, to the quantity of ʒi. The roots

roots have a light, auſtere, ſweet taſte, and are eſteemed as aperient, diuretic, and ſudorific; they act without irritation, and may be ventured upon in acute diſeaſes; decoctions of them are good in malignant diſeaſes, in the ſmall pox, and in venereal caſes, where the conſtitution is delicate, and the habit emaciated: ſome ſay they are very uſeful in carrying off, by urine, what is very much the cauſe of arthritic pains, when it is depoſited upon the joints.

Alkekengi. *Winter Cherry.*

The fruit is about the ſize of a common cherry, of a fine red colour; grows wild in France, Germany, &c. When free'd from the ſtone, it has a ſubacid taſte; is detergent, aperient, and diuretic; expels gravel; four, five, or more, are a doſe, or ʒi of the expreſſed juice. Some ſay, that by taking of them at each change of the moon, they cure and prevent the return of the gout, and occaſion a copious diſcharge of very fœtid urine. There are ſome that recommend them in the jaundice, and other affections of the viſcera.

Nephriticum Lignum. *Nephritic Wood.*

Is brought from America; outwardly of a whitiſh, or pale yellow colour; and, within, of a dark reddiſh colour; it communicates to water, and rectified ſpirit, a deep tincture, which, placed between the eyes and the light, appears of a gold colour; but, viewed in any other poſition, it has a blueiſh appearance; has little ſmell or taſte; ſome recommend it in difficulty of urine, diſorders of the kidnies, and urinary paſſages; it occaſions no heat or irritation; and, indeed, practice expects little good or hurt from it.

Raphani Rustici Radex. *Horſe Radiſh Root.* D. ʒi to 2.

It has a quick, pungent ſmell, and penetrating acrid taſte; it loſes, by drying, all its acrimony, and becomes ſweet and inſipid; when freſh, it ſtimulates the ſolids, attenuates the juices, promotes the fluid ſecretions; extends its action over all the habit, and affects the minuteſt glands; does good ſervice in ſome kinds of ſcurvies, and other chronic diſeaſes, ariſing from a viſcidity of the juices, and obſtructions of the excretory ducts; good in dropſies; if joined with an acid, it deterges the cutaneous glands, and opens thoſe little ſtoppages, that occaſion deformities upon the ſkin, and other ſymptoms of ſcurvies.

Water, and rectified ſpirit, extract its virtue, by infuſion, and elevate it by diſtillation.

Pareira Brava. *Armenian Convalvulus.*

Is brought from Braſil; the root is outwardly of a dark colour, and internally of a dull yellow; has no ſmell; it taſtes bitteriſh, with ſome degree of ſweetneſs; is excellent in ſuppreſſions of urine, nephritic pains, and calcalous complaints; excellently diſſolves viſcid mucus, by which the ſabulous matter is detained; heals ulcers of the kidnies and bladder, when the urine comes away purulent and mucous, with great pain; joined with copaiba, it proves an excellent balſamic; good in tenaceous juices, humoural aſthmas, and where the lungs are ſtuffed with thick phlegm; excellent in the jaundice, proceeding from thick bile; and alſo in Teterical caſes, where the liver is ſwelled hard and ſchirrous. The root, in ſubſtance, may be given from gr. 12 to ʒſs, and in decoction from ʒ2 to ʒ.

ANIMALIA, &c.

Millepedes. *Wood-lice.*

Have a faint diſagreeable ſmell, and pungent, ſweet, nauſeous taſte; good in ſuppreſſion of urine, obſtructions of the bowels, jaundice, ſtrumas, ſcrophulous tumours, inveterate ulcers, &c. but their real effects come far ſhort of the character given to them; their virtues chiefly reſide in their ſalt.

Vinum Millepedatum, Wine of Wood-lice, of the Edinburgh College, is an infuſion of wood-lice in white wine; it is ſaid to be good in cleanſing the viſcera; ſerviceable in the jaundice; obſtructions of the kidnies, and urinary paſſages; in chronical caſes; ſcorbutic and ſtrumous ſwellings; defluctions of rheum upon the eyes, &c. The doſe is from ʒſs to 2. The volatile ſalt of wood-lice differs in no reſpect from the volatile ſalt of other animals.

Cantharides.

Contain a volatile and cauſtic ſalt; are extremely acrimonious, penetrating, and inflaming; applied to the ſkin, they irritate the nervous coats, whereby the velocity of the blood and humours is increaſed; they inflame, and afterwards exulcerate the part, and raiſe bliſters. They are chiefly employed in languid

languid caſes, low fevers, lethargic diſorders, and in ſluggiſh, phlegmatic, corpulent habits; in theſe caſes they generally raiſe the ſpirits, quicken the circulation, and raiſe the pulſe; they occaſion leaſt pain and irritation when applied to the head; and are of wonderful ſervice in epileptic and maniacal caſes, inveterate head achs, and defluction upon the eyes; in rheumatiſm and gout, and in pleuriſies, peripneumonies, and other inflammatory caſes. Bliſters applied to the part affected does great good; applied to the feet, they cauſe a revulſion. They ſend enough of their acrid ſalt into the blood, even by outward application, as to occaſion ſtranguries, which are removed by ſoft unctuous and mucilaginous liquors liberally drank. Taken internally, they occaſion a diſcharge of blood, with exquiſite pain; if the doſe is conſiderable, they inflame and ulcerate the whole internal canal; the ſtools become purulent and mucous, the breath fœtid and cadaverous, with intenſe pain about the lower belly; the patient faints, grows giddy, raving mad, and dies: all this will happen from a few grains or leſs; but in cold, phlegmatic, ſluggiſh habits, where the viſcera are over-loaded, the kidnies and ureters obſtructed with thick, viſcid, mucous matter, cantharides have excellent effects; but as ſoon as the mucus is expelled, you muſt diſcontinue the uſe of them. They have been employed with good effect in dropſies, obſtinate obſtructions of urine, and ulcerations of the bladder; they are given, made up into large boluſes, with camphor, giving at the ſame time large draughts of emulſions, &c. but no corrector can make them ſafe in bilious habits, or where there is a tendency to inflammation. Rectified ſpirit, proof ſpirit, and water, extract their virtues, and bliſter, as well as the fly, in ſubſtance. Some have learned to procure abortions, and many other unwarrantable tricks, with cantharides.

Nitrum. *Nitre.* D. gr. 3 to 3ſs.

Is extracted, in Perſia and the Eaſt Indies, from certain earths that lie upon the ſides of hills; and is artificially produced, in ſome parts of Europe, from animal and vegetable matters, rotting together, with the addition of lime and aſhes, and expoſed for a length of time to the air. Pure nitre diſſolves in ſix times its own weight of water. If you melt nitre in a crucible, and add live charcoal, till the coal cauſes no flame, then you have *nitrum fixatum*; and if you diſſolve it in diſtilled vinegar, then evaporate it, and repeat the operation three times; afterwards diſſolve it in rectified ſpirit of wine, and again diſtill it; what remains

remains is called *Nitrum Catharticum*, *Purging Nitre*, which has a pleaſant taſte, and mild in its operation; is cathartic and diuretic, and very efficacious in opening obſtructions. The doſe is from ℈2 to ʒ5. Nitre has a penetrating, ſharp, bitter taſte, accompanied with a ſenſation of cold; is aperient, cooling, and in ſmall doſes may be given as an alterative; it abates thirſt, febrile heats, and commotions of the blood, which it dilutes, and prevents from coagulating; it ſomewhat thickens thin, ſerous, acrimonious humours; and occaſions an uniform mixture of them with ſuch as are more thick and viſcid; is diuretic, and gently looſens the belly; but in cold phlegmatic habits very ſeldom has that effect. Alvine fluxes, proceeding from too great acrimony of the bile, or inflammation of the inteſtines, are ſuppreſſed by it. In choleric and febrile diſorders, it generally raiſes a ſweat; but in malignant caſes, where the pulſe is low, and the ſtrength loſt, it retards this ſalutary evacuation. Added to gargariſms, in inflammations of the fauces, in acute fevers, it thickens the ſalival moiſture upon the palate and fauces into the conſiſtence of mucus, which keeps them moiſt for a conſiderable time; it ſtops ſpitting of blood, given in doſes of ʒſs, at proper intervals; is good in other hæmorrhages, nephritic caſes, ſuppreſſion and heat of urine, gonorrhæa, inflammations and pains of the head and delirium, in eryſipelas, diarrhæas, &c. Nitre mixed with abſorbents and diaphoretics is of great ſervice; good in pleuriſies, perepneumonies, and in loſs of appetite, nauſea, and vomiting, &c. which gouty people are ſubject to be ſeized with, when the pains of the feet, &c. ſuddenly remit.

Sal Ammoniacus. *Sal Ammoniac.* D. gr. to ʒ1.

Is a neutral, artificial, ſaline concrete; ſaid to be prepared by ſublimation from the ſoot of cow or camel dung; is brought from Egypt; the beſt is almoſt tranſparent, colourleſs, and free from any viſible impurity; what is moſt commonly met with is of a grey yellow colour on the outſide, and ſometimes black; has a very ſharp and penetrating taſte; diſſolves in twice its weight of water; and ſeems to be compoſed of a marine acid, united with a volatile alkali; for the caput mortuum of ſpirit of ſal ammoniac, diſſolved in water, filtrated and exſiccated, proves ſimilar to ſea ſalt, or *Spiritus Salis Marini Coagulatus.* Pure ſal ammoniac is a perfectly neutral ſalt, capable of attenuating viſcid juices, promoting a diaphoreſis, or the urinary diſcharges. If ʒ1 of the ſalt is taken, diſſolved in water, and the patient kept warm, it generally proves ſudorific; by moderate

moderate exercise in the open air, its action is determined to the kidnies: a large dose gently looſens the belly, and a ſtill greater proves emetic. It is an excellent febrifuge, and is ſaid to cure intermittents; is undoubtedly a powerful aperient, and paſſes into the moſt minute veſſels, and is of great ſervice, either alone or joined with bitters or the bark, where the latter would by itſelf produce dangerous obſtructions; is alſo uſed externally as an antiſeptic, and in lotions and fomentations for ædematous tumours, and in gargariſms for inflammations of the tonſils, and for attenuating and diſſolving viſcid thick mucus. Sal ammoniac is purified by ſolution in water, filtration, and cryſtalization, in the ſame manner as nitre is purified. *Sal Ammoniacum Factitium*, *Factitious Sal Ammoniac*, is obtained by ſublimation, from a mixture of ſea ſalt, wood ſoot, and urine. *Flores Salis Ammoniaci*, *Flowers of Sal Ammoniac*, are obtained by ſublimation from ſal ammoniac.

PRÆPARATA.

SALES.

L. Nitrum Vitriolatum. *Vitriolated Nitre.* D. ℈1 to ʒ1.

Is the caput mortuum of Glauber's ſpirit of nitre, diſſolved in water, filtrated through paper, and cryſtalized; it is ſometimes called *Sal Enixum Paracelſi*, *Paracelſus's Sal Enixum*; its operation is diuretic, given in broth or water-gruel. *Arcanum Duplex, ſeu Duplicatum*, is, in ſome authors, mentioned by the name of *Nitrum Vitriolatum*. *Sal Dulcis Holſatiæ*, is prepared from the caput mortuum of aqua fortis, made with equal parts of nitre and vitriol diſſolved in water, filtrated and evaporated almoſt to dryneſs, and then left to ſloot; it was extolled for a diuretic, ſudorific, or cathartic, as the humours are diſpoſed.

E. Sal Prunellæ. D. gr. 6 to ʒ1.

Is made of nitre purified ℔ 2, deflagrated with ʒ1 of flowers of ſulphur, and after the deflagration the melted ſalt is poured out upon a clean, dry, and warm braſs plate, ſo as to form into cakes. This preparation was formerly in great eſteem; and is ſtill uſed now and then; it is diuretic and cooling, given in fevers, where a diſcharge of urine is to be encouraged; good in gonorrhæas,

norrhæas, where the water ſcalds by its heat; for it both cleanſes and cools thoſe parts; is recommended in ſore throats, and inflammation of the tonſils, to be ſlowly melted in the mouth, and gently ſwallowed with a little ſugar; but whatever good effects are obſerved to ariſe from the uſe of it, may be ſtill more effectually obtained from purified nitre, from which it differs in nothing but in being a ſomewhat worſe medicine.

E. Sal Polychrestum. *Salt of many Virtues.* D. ʒſs to ℥ſs.

Is made of nitre reduced to powder and ſulphur āā p. æ. mixed, injected by little and little into an ignated crucible; and having kept the crucible upon the fire for an hour after the deflagration ceaſes, the ſalt is then purified by diſſolution in water, filtration and exſiccation. This ſalt is compoſed of the acid of the ſulphur, and the alkaline baſis of the nitre; it operates both as a cathartic and diuretic; but little deſerves the pompous title it bears.

L. Sal Diureticus. *Diuretic Salt.*
E. Tartarus Regeneratus. *Regenerated Tartar, otherwiſe called* Terra Foliata Tartari. D. ℈ſs to ʒi.

Is made of the dry ſalt of tartar powdered, or of any fixed alkaline ſalt ſaturated in a glaſs veſſel with diſtilled vinegar, the liquor, when filtrated and exhaled to dryneſs, is again ſaturated with more ſpirit of vinegar, and then depurated, and carefully exſiccated for uſe. This ſalt is of a brown colour, and not of an ungrateful odour; has a penetrating, ſaponaceous, ſaline taſte, and proves a medicine of great efficacy, and may be ſo doſed and managed as to prove either mildly cathartic, or powerfully diuretic; few of the ſaline deobſtruents come up to it in virtue; it poſſeſſes the ſame deobſtruent and febrifuge quality as ſpiritus mindereri; and I believe a bare mixture of alkaline ſalt with vinegar, without exſiccation, is not much inferior, as a medicine, to this ſalt. Pulvis fulminans is made of three parts of nitre, two of ſalt of tartar, and one part of ſulphur mixed in a warm mortar. This powder was formerly reckoned diuretic and diaphoretic, but is now neither preſcribed nor kept, except to play tricks with; for ʒi of it put into a ſhovel, and held over the fire, will go off like the exploſion of a muſquet.

SPIRITUS.

SPIRITUS.

L. Spiritus Nitri Glauberi. *Glauber's Spirit of Nitre.* D. gut. 10 to 50.

Is obtained by diſtillation of nitre ℔ 3, p. ſtrong ſpirit of vitriol ℔ 1, p. The chief uſe of this ſpirit is as a menſtruum for certain minerals, and as the baſis of ſome particular preparations; it is ſometimes given internally, diluted with a ſoft vehicle, as a diuretic, and cleanſer of the viſcera.

E. Spiritus Mindereri. *Mindererus's Spirit.* D. gut. ʒi to ʒſs.

Is made of volatile ſalt of ſal armoniac mixed with as much ſpirit of vinegar as will make an effervеſcence: it is a neutral ſpirit, and may be ſucceſsfully uſed as a deobſtruent, diaphoretic, and febrifuge; it may be ſo managed as to prove powerfully diuretic, and if given in a conſiderable doſe gently looſens the belly.

L. E. Spiritus Nitri Dulcis. *Sweet Spirit of Nitre.* D. gut. 20 to 50.

Is made of Glauber's ſpirit of nitre ℔ ſs, rectified ſpirit of wine ℔ 2 m. mixed together, and diſtilled as long as the liquor, which comes over, does not raiſe an effervеſcence with lixivial ſalts. If you uſe tartarized ſpirit of wine, and Glauber's ſpirit of nitre, you will have a pleaſanter ſcented and taſted ſpirit; it has been long deſervedly held in great eſteem; it quenches thirſt, promotes the natural ſecretions, expels flatulencies, ſtrengthens the ſtomach; mixed with a ſmall quantity of ſpirit C. C. ſpt. volatilis aromaticus, or any other alkaline ſpirit, it proves a mild and efficacious diaphoretic, and often notably diuretic, eſpecially in ſome febrile caſes, where ſuch a ſalutary evacuation is wanted; it may be given in any convenient vehicle. What we meet with under the name of *Tincture of Nitre*, is prepared from fixed nitre melted, and then deflagrated with twice its quantity of tartariſed ſpirit of wine, till the nitre has communicated it's tincture to the ſpirit of wine, which is decanted for uſe: it is diuretic, and diaphoretic; purifies the blood, and is a good antiſcorbutic; it may be given from gut. 20 to 60.

L. E. Spiritus Salis Ammoniaci. Sal Volatilis Salis Ammoniaci. *Spirit and Volatile Salt of Sal Ammoniac.* D. gr. 3 to 10.

The ſpirit is obtained by diſtillation, with a gentle heat, of any fixed alkaline ſalt ℔ iſs, ſal ammoniac ℔ 1, with ℔ 4 m. of water, from which two pints of

ſpirit is diſtilled. The volatile ſalt is made of ſal ammoniac ℔ 1, pure chalk ℔ 2, ſublimed in a retort with a ſtrong fire. The volatile ſalt, and ſpirit of ſal ammoniac, are the pureſt of all the medicines of this kind, and are ſomewhat more acrimonious than thoſe produced directly from animal ſubſtances; if quick lime is uſed, as an intermedium in diſtilling ſal ammoniac, a ſpirit more penetrating and pungent than the former is obtained, as *Spiritus Salis Ammoniac. cum calce viva*; but no concrete ſalt is obtained by this means. This ſpirit is reckoned too acrimonious for internal uſe; and has been chiefly uſed for ſmelling to in fainting, &c. It is an excellent menſtruum for ſundry vegetable ſubſtances, as the Peruvian bark, from which the other ſpirit extracts very little. If you take the grey ſalt, which remains in the veſſel, after diſtilling the volatile ſpirit and ſalt, and diſſolve, filtrate, and evaporate it, and give it in doſes from gr. 10 to 31, it operates powerfully by urine, and is ſaid to diſſolve even the ſtone in the bladder: It is called *Sal Ammoniacum Diureticum.*

L. Spiritus Salis Ammoniaci Dulcis. *Dulcified Spirit of Sal Ammoniac.* D. gut. 12 to 30.

Is made of any fixed alkaline ſalt ℔ ſs, ſal ammoniac ℥ 4, mixed with ℔ 3 m. of proof ſpirit, and ℔ iſs diſtilled. This ſpirit is much in eſteem as a medicine and menſtruum, good in lethargy, palſy, ſcurvy, malignant fevers, hyſterics; is pleaſanter to the taſte than ſpirit of ſal ammoniac, and may be given inſtead of it; promotes ſweat, and inſenſible perſpiration; outwardly applied it is good for paralitic limbs and nervous aches: if you uſe ſpirit of amber inſtead of proof ſpirit; what is diſtilled is called *Spiritus Salis Ammoniaci Succinnatus, Spirit of Sal Ammoniac with Amber.* It may be more expeditiouſly prepared by diſtilling ℔ 1 of ſpirit of ſal ammoniac with ℥ 1 of oil of amber: This ſpirit is reckoned more cephalic and better ſuited to all nervous indiſpoſitions, and is much more pleaſant than the dulcified ſpirit of ſal ammoniac, and may be given from gut. 10 to 40. But ſpiritus ſalis ammoniaci chalybeatus, ſpirit of ſal ammoniac with ſteel or iron, is made from the caput mortuum of the martial flowers of ſal ammoniac expoſed in the air till they begin to fuſe, and then managed as in drawing the ſpirit with tartar or lime. This ſpirit is accounted the moſt aperient and deterſive of any of the ſpirits made from this ſalt, and is given in any convenient vehicle againſt all kinds of obſtructions, eſpecially thoſe of the kidnies and uterus: the doſe is from gut. 5 to 20.

AQUÆ.

AQUÆ, &c.

L. AQUA JUNIPERI COMPOSITA. *Compound Juniper Water.*

Is obtained, by diſtillation, of juniper berries ℔ 1, ſweet fennel-ſeed, caraway ſeed āā ℥iſs, proof ſpirit one gallon, with a ſufficient quantity of water to prevent burning. This water, mixed with about an equal quantity of rob of juniper berries, proves a uſeful medicine in catarrhs, debility of the ſtomach and inteſtines, and difficulty of urine; the water itſelf is a good cordial and carminative.

E. DECOCTUM AD NEPHRITICOS. *Nephritic Decoction.*

Is made of marſhmallow roots ℥iſs, raiſins of the ſun ſtoned ℥2, boiled in ℔ 6 of water to ℔ 4, towards the end there are added of liquorice root and linſeed āā ℥ſs, pellitory of the wall ℥1, and the liquor ſtrained for uſe. This decoction is chiefly deſigned as an emollient, to be liberally drank in nephritic paroxyſms, where it often procures eaſe, and by ſoftening and relaxing the parts procures an eaſy paſſage to the ſabulous matter.

E. DECOCTUM NITROSUM. *Nitrous Decoction.* D. ℥3 to 4.

Is made of pure nitre ℥ſs, white ſugar ℥2, cochineal ʒ1, boiled in ℔ 2ſs of water to ℔ 2, and after ſettling, the clear decoction is poured off for uſe. This is an elegant way of diſguiſing nitre, and rendering it agreeable to the patient.

L. E. TINCTURA CANTHARIDUM. *Tincture of Cantharides.* D. gut. 15 to 30.

Is made of cantharides bruiſed ʒ2, cochineal ʒſs, digeſted in ℔ 1ſs of proof ſpirit, and then filtrated for uſe. The Edinburgh college directs the cantharides to be digeſted two days in rectified ſpirit of wine, and of copaiba ℥iſs, cochineal ʒ1, to be added to the ſtrained liquor, and the whole digeſted in B. A. for four days, and then ſtrained for uſe. Both theſe tinctures owe their virtues to the cantharides; they poſſeſs nearly the whole virtues of the fly, and require the ſame caution in their exhibition; and in caſes that require this powerful remedy they may be given twice a day. Dr. Mead and others ſay, that there is not any one remedy more effectual againſt a leproſy, which he thinks is owing to their diuretic quality; the conſent of the kidnies with the cutaneous glands

being ſo great, that the humours accumulated in the latter are capable of being eaſily diſcharged by the former; and that when the kidnies fail in their natural office the urinary liquor ſometimes tranſpires through the pores of the ſkin. During the uſe of cantharides ſuch purgative medicines as are proper for expelling the acrid and thick humours, are to be occaſionally interpoſed.

L. E. Pulvis Antilyssus. *Powder againſt the Bite of a Mad Dog.* D. ʒiſs.

Is made of aſh-coloured liverwort ℥ʒ, black pepper ℥ʒ beaten into powder. This powder has been celebrated for curing the bite of a mad dog; it is to be taken in the morning in ℔ ſs of cow's milk for four mornings together; before the uſe of it the patient is to be blooded, and, after the uſe of it, to be dipt in cold water every morning faſting for a month, It is greatly to be wiſhed that the efficacy of this medicine, in preventing theſe terrible diſorders, was abſolutely certain and inconteſtibly proved, which I am afraid is far from being the caſe.

L. Trochisci e Nitro. *Troches of Nitre.*

Are made of nitre purified ℥ʒ, double refined ſugar ℔ ʒ, mixed and formed into troches with mucilage of gum tragacanth. This is a very agreeable way of exhibiting nitre, though not free from inconveniencies; for when the ſalt is thus taken without any liquid, if the quantity is conſiderable, it occaſions great uneaſineſs about the ſtomach, which can only be prevented by dilution with aqueous liquors.

FORMULÆ EXTEMPORANEÆ.

℞ Tinct. canthar. gut. 15 aq. junip. comp. ʒſs — menth. vulg. ſimpl. ʒiſs ſyr. e cort. aurant. ʒʒ, f. hauſtus.

℞ Sal. diuretic ʒʒ aq. menth. vulg. ſimpl. ℥ʒ ſyr. e mecon. ℥ʒ, m. f. hauſtus.

℞ Sal. C. C. nitri āā gr. 15 aq. junip. comp. ʒſs — alexeter. ℥ʒ, m. f. hauſtus.

℞ Oxymel. ſcillitic. ʒſs aq. cinnamom. ſpt. ℥ʒ, ſpt. lavendul. comp. ſyr. e cort. aurant. āā ʒʒ, m. f. hauſtus.

℞ Aq. cinnamom. ſimpl. ʒvi, oxymel. ſcillit. ʒiſs, ſpt. lavend. comp. ʒſs, ſal. tartar. gr. 10 m. capiend. horâ ſom.

℞ Succ. limon. ʒvi, ſal. abſinth. ʒſs aq. cinnam. ſimp. ʒiſs, acet. ſcillitic. ſyr. e cort. aurant. āā ʒʒ aq. menth. piper. ſpt. ʒſs, m. f. hauſtus.

℞ Succ.

℞ Succ. cochlear. hort. ℔ ſs, vin. alb. mont. ℔ iſs, infunde frigide per horas viginti & quatuor, dein cola pro uſu.

℞ Sinapis ſem. cochl. 1 cum hauſtu decoct. fort. ſum. geniſt. mani ſumend.

℞ Aq. menth. ſimpl. ℥iſs, cinnam. ſpt. ʒ3, lixiv. tartar. ʒſs, tinct. thebaic. gut. 40, ſyr. ex althæ. ʒ1, m. f. hauſtus.

℞ Tartar. ſolub. ʒ2 ad ℥ſs ſolve in aq. fontan. ℥8, cui adde aq. cinnamom. ſpt. ſyr. violar. āā ℥1 m. in quatuor hauſt. divid.

℞ Rad. valerian. recent. iridis, ſambuc. āā ℥ſs, raphan. ʒ6, ſenæ ℥ſs, vin. rhen. ℔ 2, calide infunde per horas quadraginta & novem, dein cola & adde ſal. tartar. ℥1, ſal. volatil. ſal. ammoniac. ℥ſs, ol. e rad. ſaſſaf. eſs. (ſacchar. ſolut.) ♃2, m.

℞ Acet. ſcillitic. ℥1, aq. menth. vulg. ℥5, ſyr. zingib. ℥1, m. doſ. cochl. 1.

℞ Scill. rad. exſiccat. ʒ1, vin. alb. ℔ 1, infunde frigide per horas viginti & quatuor doſ. cochl. 1.

℞ Nitr. purif. ♃2, aq. tepid. ℔ 2, ſyr. caryophil. ℥1, pro potu.

℞ Junip. bacc. contuſ. ℥4, vin. alb. ℔ 3, coque ad ℔ 2, & cola doſ. ℥2, ter in die.

℞ Junip. bacc. ℥2, contunde & infunde in aq. bull. ℥24, poſt horas 24, cola doſ. ℥4.

℞ Rad. alth. ℥2, fol. althæ. manip. 1, coq. in aq. hordeat. ℔ 3, ad dimidium dein adde aq. raphan. comp. ſpt. vinoſ. tenuior. āā ℥4, bacc. junip.—laur āā ʒ4, ſem. aniſ. fænicul. dulc. carui dauc. ſylv. āā ʒ2, infunde calide per horas duas & cola, deinde adde gum. arab. ℥1, ſyr. zingib. ℥4.

℞ Bacc. junip. bene contuſ. ℥4, coq. in aq. ℔ 3 ad ℔ 2, cui adde ſem. aniſ. carui, fænicul. dulc. coriand. contuſ. āā ʒ2, ſal. abſinth. ʒ1, frigide cola & adde ſacchar. pur. ℥2, ſpt. cochlear. — ſal. ammoniac. āā ♃4, D. ℥4, ter quaterve in die.

℞ Rhabarb. ʒ3, gum. guaiac. ʒiſs,—laccæ ʒ1, canthar. contuſ. ʒ2, cochinell. ♃iſs, S. V. R. ℔ iſs, macera & cola doſ. gut. 30 ad. 50 in aq. calid. cyath. mane & veſp.

℞ Milleped. viv. ℥6, vin. alb. ℔ 2, infunde per aliquot dies dein cola & adde croci ʒ2, ſal. mart. ʒ1, ſal. ſuccin. ♃2, poſt tres vel quatuor dies iterum cola D. ℥2, bis in die.

℞ Ciner. geniſt. ℥6, rad. raphan. ℥4, irid. calam. aromatic. enul. campan. āā ℥2, guaiac. ſaſſaf. bacc. junip. ſem. dauc. āā ℥1, ſem. ſinapiſ. ℥2, infunde in vin. mont. cong. 2 & cola.

℞ Vin.

℞ Vin. alb. ℥6, aq. raphan. comp. ℥4, ſyr. ex alth. ℥1, m.

℞ Aq. piper. Jamaicen. ℥3, vin. alb. ℥6, ol. tartart. per deliquium ʒ2, ſyr. ex alth. ℥1 m.

℞ Vin. alb. ℥8, aq. raphan. comp. ℥2, ſpt. nitr. dulc. ʒ2, ſyr. ex alth. ℥1.

℞ Vin. alb. ℥2, ſpt. terebinth. ʒ3, ol. tartar. per deliquium ʒ1, ſyr. ex alth. ʒ2 m.

℞ Aq. cinnamom. ſpt. acet. ſcillitic. ſyr, ex alth. āā ℥1 m.

℞ Balſam. copaib. ʒ3, ol. e bacc. junip. gut. 30, mucil. gum. tragacanth. q. ſ. aq. commun. ℥6, ſpt. vin. tenuior. ſyr. ex althæ. āā ℥3.

℞ Vin. alb. acet. ſcillitic. āā ℥1, ſpt. C. C. ʒ2, ſyr. papav. errat. ʒ4 m.

℞ Aq. raphan. comp. vin. alb. āā ℥1, ol. amygdal. dulc. ſyr. ex alth. āā ʒ4 m.

℞ Vin. alb. ℥2, ol. tartar. per diliquium ʒ2, ſyr. papav. errat. ol. amygdal. āā ʒ3 m.

℞ Ol. palm. chriſt. ſyr. ex alth. āā ℥1, ol. tartar. per diliquium ʒ2, vin. alb. ℥1 m.

℞ Vin. alb. ℥iſs, ſpt. nitr. dul. gut. 40, ol. oliv. ſyr. papav. errat. āā ℥ſs m.

℞ Spt. mindereri ℥4, aq. raphan. comp. ℥2, ſyr. ex alth. ℥3 m.

℞ Rad. alth. ℔ 1, fænicul. ℥6, nitr. ℥ſs, aq. fontan. cong. 1 coq. ad dimidium col. pro potu communi.

℞ Rad. petroſelin. fænicul. āā ℥1, ſem. dauc. ſylv. ʒ3, parietar. ʒ4, uv. paſſ. ℥2, nitr. ʒ1, aq. fontan. ℔3, coq. ad ℔2, cola pro potu.

℞ Sal. duiretic. ℈2, oxymel. ſcillitic. ʒ1, aq. valerian. comp. ℥iſs m.

℞ Tinct. cantharid. gut. 15, ſal. abſinth. ℈iſs, ſucc. limon. ʒ6, aq. puleg. ſimpl. ℥iſs, ſyr. ſimpl. ʒ2 m.

℞ Fol. cochlear. hortenſ. naſturt. aquat. becabung. āā manip. 3, ciner. geniſt. ℔ 1, rad. raphan. ruſt. ſem. ſinap. contuſ. āā ℥3, baccar. junip. ℥2, limatur. mart. (ſacculo incluſæ) ℔2, infunde in cereviſ. vet. fort. cong. 3, per quatriduum.

℞ Ciner. geniſt. ℥3, vin. rhen. ℔3 m. f. lixiv. cui adde rad. iridis ℥iſs, cort. rad. ſambuc. ℥2, mechoacan. ℥4, cort. ſolan. lignoſ. ℥ſs, rhabarbar. ſem. carui ʒ6, cort. ſaſſaf. cinnamom. āā ℈4, infunde calide per 12 horas dein cola & adde ſacchar. ℥5, fol. roſar. damaſ. manip. 1, infunde & cola doſ. ℥3, mane vacuo ſtomacho.

℞ Pulv. curcum. ℥2, croci ℈2, coccinell. ℈4, milleped. N° 320. vin. canar. ℔2, infunde per 6 vel 7 dies dein cola doſ. ℥2, ter quaterve in die.

℞ Bacc. junip. contuſ. ℔ 1, uv. paſſ. ℥6, ſummit. pin. hyperic. agrimon. centaur. minor. āā manip. 4 rad. gentian. calam. aromatic. rad. angel. cort. winteran. āā ℥1, infunde in cereviſ. cong. 9, D. ℔ 1 mane.

℞ Rad.

℞ Rad. alth. ℥2, aq. ℔3 ad ℔2, cola cui adde ſyr. ex alth. ℥2, D. ℔ſs, bis in die.

℞ Ol. amygdal. aq. menth. vulg. ſpt. āā ℥1 mannæ ʒ3, ſyr. ex alth. ʒ2, pulv. gum. tragacanth ʒſs m.

℞ Sal. tartar. ſacchar. alb. āā ℔1, ſolve in aq. menth. piper. ſimpl. cong. 1, cui adde aq. menth. piper. ſpt. ℥4, doſ. ℥2, ter in die.

℞ Lac. ammon. ℥12, ſyr. ſcillitic. ℥4, aq. piper. Jamaicenſ. — junip. comp. āā ℥2.

℞ Gum. arab. — tragacanth. āā ℥1, ſolut. in aq. commun. ℔6, ſyr. ex alth. ℥4, doſ. cochl. 3, ter in die.

℞ Cort. guaiac. ℔2, rad. glycyrrhiz. ℔ſs, ſem. coriand. ℥2, aq. fontan. cong. 6 coq. ad cong. 4, in finem adde mezerion. rad. ℥2, cola doſ. ℔ſs, ter in die.

℞ Decoct. pectoral. ℥2, ſal. diuretic. ʒ2 m.

℞ Terebinth. venet. ℥ſs, mellis q. ſ. aq. piper. Jamaicen. ʒ3 — menth. vulg. ſimpl. ℥iſs m.

℞ Ol. lin. ℥ſs, aq. alexet. ſimpl. ℥1, ſpt. ſal. ammon. gut. 10, ſyrup. ſimpl. ʒ2 m.

℞ Sapon. venet. ʒ1, aq. alexet. ſimpl. ℥2, ſpt. lavend. ʒ1, ſyr. ſimpl. ʒ3.

℞ Oocul. ℔ præp. ℥1, milleped. ʒ1, ſal. ſuccin. ʒiſs, nuc. moſchat. ʒ2, m. f. pulv.

℞ Sal. ſuccin. ſacchar. alb. p. æ. f. pulv. doſ. ʒſs.

℞ Ol. terebinth. gut. 6, oxymel. ſcillitic. ϑ1, pulv. glycyrrhiz. q. ſ. f. bolus.

℞ Sapon. dur. ϑ1 ol. e bacc. junip. gut. 10, f. bolus.

℞ Oxymel. ſcillit. elect. lenitiv. āā p. æ. f. elect.

℞ Terebinth. chi. ʒ3, elect. lenitiv. ℥iſs, f. elect.

℞ Simmit. pini ſylv. geniſt. ſambuc. trifol. paludoſ. āā manip. 6 bacc. junip. ℥4, cort. ebul. — berber. — tamariſc. āā ℔iſs, rad. althæ. — apii glycyrrhiz. rhabarb. fænicul. aſparag. petroſelin. āā ℥6, coq. in aq. fontan. q. ſ. ut colatura ſit ℔5; dein evaporetur in B. A. ad ſpiſſitudinem mellis adde rhabarbar. tamariſc. āā ℥2, croc. millep. præp. ſem. ebul. āā ℥1, ſapon. caſtil. ℥3, balſ. copaib. ℥1, mellis q. ſ. f. elect.

℞ Scill. exſicc. gr. 4, ſapon. dur. ϑ1 f. bolus.

℞ Cryſtal. tartar. coccinell. āā ϑiſs ſapon. venet. ϑ2 m.

℞ Sapon. venet. ʒ2, croci nitri, ſal. ſuccin. āā ϑ1, ol. bacc. junip. gut. 10, m. f. pil.

℞ Tartar.

℞ Tartar. vitriol. croc. āā ʒ2, ſal. ſuccin. ℈1, ſapon. venet. 32, ol. bacc. junip. gut. 13, elect. lenitiv. q. ſ. f. pil.

℞ Pulv. cantharid. gr. 16 extr. thebaic. gr. 4, nitri 31, terebinth. venet. q. ſ. f. pil.

℞ Occul. ♋ præp. 31, camphor. ℈1, pulv. cantharid. gr. 10, terebinth. venet. q. ſ. f. pil.

℞ Scill. recent. gr. 6, pulv. ari comp. ℈ſs, zingib. pulv. gr. 5, ſyr. e cort. aurant. q. ſ. f. bolus quotidie mane ſumend.

℞ Sapon. venet. gum. ammon. āā ʒiſs, milleped. præp. 31, ſcill. pulv. 31, ol. bacc. junip. q. ſ. f. pil.

℞ Sal. prunel. gr. 10, ſal. ſuccin. gr. 4, ol. terebinth. gut. 3, ſacchar. ℈1 m.

℞ Rad. ſaſſaf. althæ. āā 31, occul. ♋ ſacchar. 32, ſal. prunel. 31, f. pulv.

℞ Milleped. præp. ſal. prunel. ſperm. cet. āā gr. 6, ſacchar. ℈1 m.

℞ Pulv. rad. althæ. gr. 10, ſal. ſuccin. gr. 5, ſacchar. ℈1.

℞ Sal. mart. myrrh. āā gr. 8, croci gr. 5, ol. ſabin. gut. 1, ſacchar. gr. 10 m.

℞ Rad. hellebor. nig. gr. 10, ſal. ſuccin. gr. 6, croci gr. 5 m.

℞ Sapon. alb. ʒſs, ol. bacc. junip. gut. 5, ſyr. ſimpl. q. ſ. f. bolus.

℞ Spt. terebinth. gut. 20, conſerv. ſummit. abſinth. marit. ℈1 m. f. bolus.

℞ Elect. lenitiv. ʒ2, ſucc. glycyrrhiz. ʒiſs, terebinth. ʒſs, pulv. rhabarb. 32, m. f. elect.

℞ Sapon. dur. ʒ1, ol. e ſem. aniſ. — carui āā ʒſs, ſyr. ſimpl. q. ſ. elect.

℞ Sapon. 31, ol. e ſem. carui gut. 10, hier. picræ gr. 4, m. f. bolus.

℞ Sapon. dur. 31, ol. e ſem. aniſ. gut. 12, pulv. rhabarb. gr. 10, m. f. bolus.

℞ Enul. campan. ſcill. pulv. āā ʒ1, ol. e ſem. aniſ. ʒſs, ſyr. ex alth. q. ſ. f. elect.

SECTION

SECTION VII.

CHAP. I.

Of DIAPHORETICS.

UNDER this name of Diaphoretics we include all that go under the denomination of Alexipharmics, febrifuges, and ſudorifics, as they all exert themſelves by increaſing a ſenſible or inſenſible diſcharge of moiſture by the ſkin. They are termed Alexipharmics and Febrifuges, becauſe we obſerve ſweating very often terminates fevers, and throws off poiſonous or contagious infection. Indeed what commonly go by the name of Alteratives, may more properly be called Diaphoretics. If the orifices of the veſſels are ſo large and dilated, that the particles which exude, are too heavy to be carried off by the atmoſphere, then they condenſe, ſettle, and ſhew themſelves like a dew upon the ſkin, which is called a ſenſible diſcharge or ſweat; and the medicines that procure it, are called ſudorifics. But if the moiſture goes off without reſting upon the body, then it is called an inſenſible diſcharge, or Sanctorian perſpiration; and the medicines, that either forward, continue, or procure it when interrupted, are called Diaphoretics. But you are not to ſuppoſe that ſweat and inſenſible perſpiration differ only in quantity; for the difference is in quality, as well as in quantity; which by and by we ſhall endeavour to demonſtrate.

The ſkin is a ſubſtance made up of tendinous, membranous, vaſcular, and nervous fibres. The outſide of the ſkin is covered by a thin, tranſparent web, cloſely joined to it, which is called the *Epidermis*, *cuticular*, *or ſcarf ſkin*, and has its origin from a ſubſtance, that tranſudes from the papillæ of the ſkin, to which it is connected by ſmall filaments, but adheres ſtill cloſer to the *Corpus Reticulare*, or *Mucoſum*, which is eaſily raiſed along with it; and indeed they ſeem to be true portions and continuations of each other; it has the ſame number of pores and openings as the ſkin. The epidermis ſerves to keep the

nervous filaments of the papillæ in an even ſituation, and without confuſion. It moderates the impreſſion of external objects, and regulates the cutaneous evacuations. When this thin, tranſparent web, or ſtratum of fine, ſmall, ſquamous laminæ is removed, we find the outward ſurface of the ſkin furniſhed with ſmall eminencies called *Papillæ*, in which the capillary filaments of the cutaneous nerves terminate. The internal cavities of the larger veſſels are alſo lined with *papillæ*, which pour out a kind of lymph, into the cavity of the body, which partly exhales into air, through the mouth and noſe, and is partly received by the abſorbent veins. They are generally of a flat figure, and of different breadths, in different parts of the body. Cold contracts them, and ſweat compreſſes them into a pyramidal form, whereby their diameters are diminiſhed, and perſpiration accordingly much obſtructed. Theſe papillæ are incloſed, at their baſis, by a ſoft, mucilaginous, and pretty viſcid ſubſtance, which fills up the interſtices between them, and repreſents a kind of net-work, called *Corpus Reticulare*, or *Mucoſum*, which is very probably the continuation or production of the very ſmall capillaries of arteries and veins, which in their natural ſtate tranſmit only the finer part of the blood, while the red part continues its circulation through the wider ramifications, which more properly retain the name of blood-veſſels. The inner ſurface of the ſkin is covered by very ſmall tubercles, called *Cutaneous Glands*, or *Glandulæ Miliares*, becauſe of the reſemblance they bear to millet-ſeeds. The tubercles are fixed in ſmall foſſulæ in the ſubſtance of the ſkin, anſwering to the ſame number of ſmall cavities in the corpus adipoſum ; their excretory ducts open on the outer ſurface of the ſkin, ſometimes in the papillæ, and ſometimes on one ſide of them ; the greateſt part of them furniſh ſweat and other fat and oily matter of different thickneſs. The ſtructure of ſome of theſe cutaneous glands reſemble the circumvolutions of the ſmall inteſtines, plentifully ſtored with capillary veſſels.

Under the ſkin lies the *Membrana Adipoſa*, *Corpus Adipoſum*, or fat, which is a congeries of a great number of membranous laminæ, irregularly joined to each other at different diſtances, ſo as to form numerous interſtices of different diameters, called *Cellulæ*, and the ſubſtance made up of them is called the *Cellulous Subſtance*. The membrana adipoſa adheres cloſely to the ſkin, and runs in between the muſcles in general, and between the ſeveral fibres in particular, and keeps them flexible for action, and prevents or leſſens their mutual frictions and abraſions, and communicates with the membrane that lines the

inſide

inſide of the thorax and abdomen. This ſubſtance increaſes in quantity in the body, by reſt, and good living; and diminiſhes by hard labour and ſpare diet. Hard labour diſſolves it, and fits it for paſſing out of the body with the other matter of inſenſible perſpiration; while an idle ſedentary life renders the fat leſs fluid, and more capable of blocking up the paſſages of inſenſible tranſpiration, through which it would otherwiſe run off.

Let us now apply what hath been ſaid to the ſubject in hand. The epidermis ſerves to keep the papillæ in a regular ſituation, and moderates the impreſſion of external objects; for feeling is more or leſs perfect in proportion to the thickneſs of the epidermis: it likewiſe regulates the cutaneous evacuations.

The papillæ are the origin of feeling. An object applied to the ſkin, makes an impreſſion upon the nervous papillæ, which they tranſmit, from without, inwards, by means of their veinous productions: and accordingly we ſee that the ends of the fingers have proportionably a larger and greater number of nervous filaments than other parts of the body. They contribute to the univerſal evacuation called *Inſenſible Tranſpiration*, which is a diſcharge of the moſt putrid parts of the body; for the moſt putrid parts are alſo the moſt fugitive; they inceſſantly iſſue out of theſe cutaneous exhaling arteries, which are diſperſed over all the ſurface of the body externally and internally; they iſſue out, I ſay, like a fine ſubtile ſmoke, which imperceptibly flows out of the body in different quantities, and diſperſes with the wind; but in a ſtagnation of the air, it remains about the body, and, by way of ferment, excite it to corruption. This ſubtile matter becomes viſible by applying the tip of the finger to the ſurface of a looking-glaſs, fine ſteel, or any other well-poliſhed metal, which will preſently look dull, and appear covered with a condenſed vapour, or viſible moiſture. *Sanctorius* ſays, that this evacuation in one day is equal to all the ſenſible evacuations for fifteen; but it does not appear ſo great by calculations made in other countries.

This inſenſible cutaneous evacuation is performed through the papillæ in the ſame manner as we obſerve the ſmoke to ariſe from the inteſtines of an animal newly killed and opened: This continual diſcharge of the moſt ſubtile parts of our fluids is naturally very moderate and regular; it is more abundant in ſummer, or before a good fire, after ſtrong exerciſe, and during the diſtribution

of the chyle, than in winter, cold weather, during inaction, and before meals. The matter itſelf ſeems to be *Salino ſulphureous*; and when we conſider how putreſcent blood becomes in a heat equal to that of the human body, we may be convinced that the perſpiration by the lungs and ſkin is no ſooner impeded, and theſe volatile corrupted particles retained in the body, than a reſolution begins in the whole maſs, which if not timely prevented, brings on ſome putrid diſeaſe.

Perſpiration is abſolutely neceſſary to animal and vegetable life, and a free and regular perſpiration is neceſſary to good health, which we ſee exemplified in nervous people; for an obſtructed perſpiration is the primary and chief cauſe of all that train of hideous and frightful ſymptoms that afflict nervous people; it is likewiſe the cauſe of the tranſient lowneſſes, that people, otherwiſe healthy, are forced ſometimes to complain of, particularly in gloomy weather; for the ſtate of the atmoſphere, which differs in different times and ſeaſons of the year, greatly promotes or retards perſpiration; for the perſpirable matter both of animals and vegetables is wafted away by the air, as ſoon as it comes to the perſpiratory orifices; but when either the air is faulty, or the matter itſelf not prepared to be buoyed up and carried way by the air, then it ſtagnates, plaſters up the mouths of the veſſels, which, being already full, hinder the acceſſion of new juices, conſequently the obſtructed parts are prevented from receiving freſh nouriſhment; hence leanneſs, cutaneous diſeaſes, &c. If the perſpirable matter, which is in a ſtate of putrefaction, falls moſtly upon the lungs, then it produces a nervous aſthma; if it tends to the heart, a palpitation; if to the head, tinglings, thumpings, epilepſies, palſies, apoplexies, &c. If upon the ſtomach, nauſea, vomiting, ſtinking breath, &c. If it enter the coats and veſſels of the muſcles, it cauſes gout, rheumatiſm, wandering pains: and as perſpiration greatly promotes the circulation of the blood, by depletion, ſo when it is obſtructed the circulation becomes more languid; and as the perſpirable matter is in a ſtate of putrefaction, ſo the ſolids are rendered leſs elaſtic, and the body becomes habituated to putrefaction, and advances from one ſtage to another, till life can no longer be ſupported. For when external perſpiration is obſtructed, the internal perſpiration is very ſoon in the ſame ſtate; and the inteſtines, which diſcharge by the anus the fæces along with the noxious matter of perſpiration, are ſo relaxed, that they cannot protrude the fæces and putrid perſpirable matter, which is again taken up by the abſorbent lymphatics,

and

and mixed a-new with the maſs of blood, where it increaſes the ſeptic ferment, as yeaſt does that of flower; the nervous fluid has not a ſufficient ſupply from the food we eat; for as the finer veſſels ſuffer firſt in obſtructions, ſo the nerves are much relaxed, and perhaps obſtructed, conſequently freſh ſupplies are prevented from entering into them, and they are likewiſe deprived of their great, and perhaps chief ſupport, the AIR; for I believe the food we eat goes chiefly to ſupply and ſupport the larger veſſels; ſome ſmall quantity, no doubt, arrives at ſo great a degree of ſubtilty, as to mix with the nervous fluid. But the nerves are chiefly ſupplied by air in inſpiration, and by abſorption, for we may conſider the nerves as a diſtinct ſyſtem of themſelves, having their inhaling and exhaling veſſels: which notion enables us to account for the inſtantaneous effects of the ſtrongeſt poiſons, as that of a viper, &c. for ſome perſons have ſuch a formation of parts as greedily to imbibe and receive by the abſorbents great quantities of noxious particles, and immediately carry them to the brain. But as I deſign to publiſh a treatiſe upon the nature and operation of poiſons, I ſhall add no more at preſent; but ſhall here beg leave to ſay two or three words concerning the nature of air, which ſeems to be a fluid very ſimilar to the nervous; and upon it both the life and reaſon of animals, the vegetation, and growth of vegetables, and all the motions and revolutions of the heavens, depend.

AIR is a diaphonous fluid ſubſtance, whoſe parts mutually avoid each other, and by that means become elaſtic. Heat increaſes this elaſticity, and melts down the groſſer particles of air, and has the ſame effects as water has upon ſalt; for the particles of ſalt mutually attract each other, but when put into water they mutually avoid each other, and diſperſe all over the diſſolving fluid. Air exiſts in three ſtates or conditions, which go under different names, viz. fire, light, and ſpirit; and fire is light, and light is ſpirit, and ſpirit is fire, and theſe three are one; ſpirit is air in a ſtorkened, languid, and dead ſtate, and according as it is more or leſs ſluggiſh, torpid, and groſs, ſo we have more or leſs darkneſs. Light is air in a more rarified fluid ſtate, with a greater degree of motion and circulation. Fire is air in its moſt rarified, ſubtile, and refined ſtate, with a very quick, impetuous, and rapid motion. The weight of the air differs in different parts of the earth, and at different ſeaſons of the year and weather, and at different hours of the day; for the air is always heavieſt at night when it is groſſeſt, for the weight of air depends upon its groſſneſs, and that again depends upon its greater or ſmaller motion; and accordingly the ſtate of the air diſpoſes more to ſleep at night than in the day.

It

It is ſaid that the air is ſcarcely ever leſs than eight hundred times ſpecifically lighter than water; and in its natural ſtate, on our earth, is ſeldom more than one thouſand times lighter than water. The denſity of the air is in proportion to its compreſſion, therefore the higher you aſcend the thinner the air is, and the lighter the atmoſphere, till you get to the ſun, which is a ball of liquid fire, or air, in its moſt fluid ſtate, and moſt rapid motion: here the light is paſt our comprehenſion; and is perhaps the habitation of ſome very refined beings. The circulation of the air, and the manner how our planetary ſyſtem is thereby put in motion, and makes its revolutions, is already demonſtrated in my *Diſſertation upon the Nerves.*

The quantity of air continually increaſes and decreaſes, for there is no fermentation or putrefaction whatever, but detaches ſome particles from bodies, which having a mutual avoidance, become air, and circulate in the air. Put fruit, bread, dead animals, &c. into an exhauſted receiver, in a few days, by corrupting, they will fill it again with a vaſt quantity of air, which is the corrupted effluvia turned to a noxious and deadly air; which if transferred upon any vegetable, it kills it; if upon an animal, it immediately falls into convulſions and dies; not unlike the manner in which dogs are deſtroyed in the *Grotta del Cani* in *Italy.* Hence we ſee, that air contains the effluvia, or the ſubtileſt parts of all matter, viz. water, earth, ſmoke, plants, animals, minerals, &c.

But as air increaſes, ſo it alſo decreaſes; for it conſtantly aſcends in the tubes of plants to carry up the juice, open and ſupport the veſſels againſt the preſſure of the external air, and to ſwell the fruit. It mixes with the ſoil and water in order to promote vegetation.

Again, this acid ſpirit or air, which we may call *Sal Catholicus*, performs thoſe ſurpriſing facts, at which we all wonder; by means of it the earth becomes manure; and by it iron turns to ruſt. It corrodes braſs and copper, and turns them into ruſt, or verdegreaſe. It is this ſal catholicus that mixes with the ſalt of lime, and forms nitre. Diſtill from vitriol all the oil you can, and then expoſe the remainder, for ſome time, to the air, it will immediately imbibe ſo much of this acid ſpirit, as to render it able to yield plentifully upon a ſecond diſtillation. It is this ſpirit or air that feeds the flame, and alſo accounts for that odd appearance of ſun-ſhine putting out the fire. The heat of the ſun rarifies, ſublimes,

ſublimes, and accelerates the motion of this acid ſpirit, whereby its denſity is diminiſhed, conſequently its quantity is too ſmall to nouriſh and keep up the fire. Near to the fire is always a rarefaction, for every fire acts like a little ſun in a ſmall atmoſphere; and the real difference between a fire and the ſun conſiſts entirely in the difference there is in their bulks or quantities of matter; for the rarefaction that is nigh the fire makes freſh cool air, or air in a more ſtorkened ſtate to flow in; but when the ſun ſhines, the rarefaction is nearly equal all over the room, and conſequently no ſuch current or freſh ſupply near the fire, which is abſolutely neceſſary to keep up its vigour. Juſt ſo it is with the ſun, he is conſtantly iſſuing out rays of light, which waſte is as conſtantly ſupplied by ſtorkened air ruſhing in. This ſtorkened, ſluggiſh, groſs air, when it enters the orb or body of the ſun, is by attrition and collition, broke, ſubtiliſed, or melted down, and iſſues out again in form of light. It is this acid ſpirit, which, uniting and fermenting with ſulphureous ſteams, &c. cauſes all the thunders, lightenings, meteors, earthquakes, &c. It is this acid ſpirit which ferments with the ſulphur and ſalt of the earth when plowed, whereby it becomes a kind of nitre, which mellows, relaxes, and inriches the ſoil. This acid ſpirit is ſo ſubtile and volatile, as to be able to unite with, pervade, and agitate every thing; it diffuſes itſelf all over the earth, and performs the greateſt wonders in nature. It is this ſubtile fluid that is the cauſe of gravitation, magnetiſm, and electricity. In a word, it is this acid ſpirit that is the cement and baſis of all material bodies, and is the ſupport of vegetable and animal life. This acid ſpirit conſtitutes the cement between the particles, which conſtitute the fibres of the bodies, and likewiſe is the concreting matter that unites the atoms that compoſe our fluids; and chalk, teſtacea, and all other ſeptics, act upon the body, and bring on putrefaction by becoming diſſolvents, and abſorbing this acid cement, as they are the proper abſorbers of acids. Accordingly we ſee, that when animal ſubſtances begin to turn to corruption, or to return to their original chaos, their texture is looſened, whereby this acid ſpirit has opportunity to diſengage itſelf and evaporate; ſo that it is the juſtle this ſalt makes to diſengage itſelf, that begins putrefaction; and the more liberty this ſpirit has, the more putrid the body is.

To enumerate all the properties and advantages we enjoy from the air would fill a volume; leſt therefore I ſhould be too tedious, I ſhall only mention this one thing more; it is this acid ſpirit or air, with the additional ſupply of food, that preſerves our bodies from putrefaction; for our bodies abound with alkaline

kaline ſalt, which muſt be corrected by the acid ſpirit of the air; if the alkali gets the better, there ariſe putrid peſtilential diſeaſes, and at laſt death itſelf.

Air, in a putrid ſtate, reſembles that noxious ſtinking damp which ſulphur, when kindled, emits; or ſimilar to the damp which ariſes from coal mines, deep ſunk wells, &c. and our nervous fluid, in a healthy ſtate, reſembles this ſal catholicus when in a pure ſtate; and in nervous and putrid diſeaſes the animal æther reſembles the air in its putrid ſtate, which we ſhall call *Aër Mephriticus*. Our nervous fluid is chiefly ſupplied by air, received by the abſorbent nerves; the higheſt volatiliſed part ſupplies the nervous fluid itſelf, while the groſſer, harder, and more compact part, goes to ſupply the coats of the nerves. This hypotheſis I might prove from conſidering the diſeaſes which the change of air produces, as the putrid, malignant, epidemical, and peſtilential; and likewiſe by conſidering how ſoon nervous diſeaſes come on when perſpiration is obſtructed. Is not the cure of all theſe diſeaſes brought about by opening a free perſpiration, and correcting the predominant alkali by its oppoſite? What are the damps from lead mines, &c. which deſtroy all before them wherever they come? What is the ſmoke of charcoal, which daily experience ſhews to be ſo fatal? They are nothing elſe but a large quantity of this aër mephriticus: he who doubts this may convince himſelf by obſerving the effects of it, which he will find to be wonderful, enlightening, and ſatisfactory. Wonderful, as being able to effect all the changes which we obſerve in nature, whether in the animal, vegetable, or mineral world. Enlightening, as being thereby able to account for the cauſes and manner in which wonderful, and formerly unaccountable phænomena are produced. Satisfactory, as leaving the ſoul intirely ſatisfied, without the leaſt room to doubt. Many experiments have I made, which I ſhould at this time have been glad to have mentioned, was I not afraid of the reader's diſpleaſure in being ſo much interrupted; therefore I ſhall for once ſacrifice my own pleaſure to what I ſuppoſe would be his wiſh, and return from this digreſſion, if I may ſo call it.

We have now ſeen, that all the ſurface of the body, both externally and internally, are filled with exhaling veſſels. Some indeed will not allow internal exhaling veſſels, and affirm that the moiſture we find upon the internal ſides of the viſcera, and in the thorax and abdomen, is not brought there by exhaling arteries, but by tranſudation; and indeed this doctrine I am more inclined

clined to believe than I was ſome time ago; though I have not yet had an opportunity to ſee experiments ſo ſatisfactory as entirely to convince me of it; but none deny exhaling arteries upon all parts of the ſkin; and as there are exhaling arteries, ſo there are innumerable inhaling or abſorbent veins, which are a ſpecies of lymphatics: the cutaneous abſorbents conſtantly convey into the blood, the air and watery particles, &c. that continually float in it; we very erroneouſly eſtimate the moiſture of the ſeaſon by the quantity of rain, and the great and ſudden falls of it, whereas it depends more upon the conſtancy of winds, whether with or without great rains or fogs; which is very bad weather for all, but eſpecially dropſical people; who ought never to live near much water or wood, for woody countries are always damp, and the people very ſubject to agues; for the perſpiration of vegetables is ſo great that it is no wonder that the air is damp and moiſt: which by the bye may ſerve as a warning to gentlemen who value their healths, which too few do if all were conſidered, not to be profuſe in planting near their houſes, for the humidity of the air is increaſed by the perſpiration of the trees, and the imperfect ventilation of the air, occaſioned by the trees; the hills again are ventilators to the earth, and prevent the air from ſtagnating. As gentlemen ſhould be careful not to have much planting near their houſes, ſo ſome care ſhould be taken in the choice of the trees they do plant; for ſome trees and vegetables, by the quality and quantity of their perſpiration, make the air medicinal; they much contribute to health, and the ſalubrity of a gentleman's ſeat, which ſhould always be built upon a riſing ground. When the air is moiſt, and the body exhauſted with fatigue, the imbibation by the abſorbent veins (which are the ſame as thoſe internal abſorbents that receive the chyle) often exceeds the exhalation by the arteries. In a diabetes, the urine frequently exceeds the quantity of liquor drank, which is often ſo greedily taken up by the abſorbent veſſels of the ſtomach and inteſtines, as to be diſcharged by the kidnies, before one could have thought it had got into the body. Dr. *Whytt* ſays, taking the whole year round, the perſpiration made by the ſkin and lungs, exceeds their abſorption by about ℥40 a day in *Great Britain*, and ℥54 in *South Carolina*; which though it has been commonly reckoned the total of the perſpiration, is really no more than its exceſs above the quantity taken in by the abſorbent veins of the ſkin, fauces, and lungs.

The imbibition by the ſkin is performed in the ſame manner as other abſorption; the pulſation of the arteries, which forwards the circulation of the

chyle, is continued by the perpetual vibrating oſcillations of the external air, and likewiſe by part of it which enters the abſorbents, and acts as a ſtimulus. Dr. *W.* thinks it is by no means probable that the elaſtic air can be imbibed by theſe veſſels, and thus conveyed into the blood; for it has been obſerved, that this fluid moves with great force through a capillary glaſs tube, though ſometimes larger than the pores of the ſkin; and it is well known that water, and other fluids, can penetrate many ſubſtances through which air cannot paſs. But though we ſhould grant that the elaſtic air does not enter by the abſorbents, yet the food we eat contains a great deal of air. But it is abſolutely certain that air does enter the abſorbents, and is by them conveyed into the maſs of blood, and becomes the chief cauſe of its circulation; for 'tis this acid ſpirit which mixes with our juices, that gives a ſtimulus to the nerves of the ſeveral veſſels, by means of which the fluids move on; indeed the air does not enter in ſo large columns as to coagulate the blood, which it is found to do when ſtringed into the veins; but this effect is produced by injecting the air in too large quantities.

The exhalations from animal, vegetable, and mineral bodies are tranſmitted, along with the watery particles and the air, into the blood by the abſorbent veins of the ſkin, &c. by the ſame courſe that the abſorbent veins carry the chyle to the heart. This enables us to account for peſtilential and epidemical diſeaſes raging at particular ſeaſons of the year.

As the effluvia of different ſubſtances floating in the air are, by means of the cutaneous abſorbents, conveyed into the blood, ſo likewiſe are the finer parts of plaſters, cataplaſms, fomentations, mercurial lotions, and all other external applications; which ought to be conſidered not only as having a topical influence, but alſo as acting upon the whole body, by their ſubtile parts, which are mixed with the blood and other fluids. Thus mercurial plaſters enter the abſorbent veſſels in ſuch a quantity as to bring on a ſalivation.

When the atmoſphere is moſt loaded with the effluvia of ſtagnating water, and rendered more putrid by vegetables and animals dying and rotting in it; at ſuch times all meats are quickly tainted; then low, malignant, putrid, intermittent fevers, dyſenteries, with other putrid diſorders, rage. For the putrid effluvia of both vegetables and animals, ſtagnating water, moiſt ſtagnating air and heat, have an aſſimilating quality, and act as a ferment upon the humours. There is no ſtronger ſeptic than putrid fleſh. For putrefaction, as I have already

ready ſhewn, is nothing but an inteſtine motion of the particles of bodies amongſt themſelves, which a body already in that condition eaſily communicates to another.

Whenever the fogs and damps ſtop perſpiration, and ſhut up the putrid humours, and bring on a fever, which appears differently in different conſtitutions, according to the ſtate of the ſolids and fluids; if the ſolids are tenſe and elaſtic, and the patient plethoric, then he is ſeized with an ardent or high inflammatory fever, which always changes to a putrid or malignant form, if the patient lives ſo long, and if the change is not prevented by timely applying proper medicines. If the perſon is bilious with more relaxed ſolids, then the fever attacks with leſs violence at firſt, but creeps on inſenſibly; the patient complains of a nauſea, thirſt, bitter taſte of the mouth, frequent evacuation of putrid bile; and theſe ſymptions of putrefaction, if not properly managed, inſenſibly change into a peſtilential or malignant form with *petechiæ* or red ſpots, which turn to a livid colour; though all malignant fevers are not accompanied with red ſpots: ſometimes this fever ends in a mortification of the bowels, for the bowels mortify the ſooneſt of any part of the body. If the mouths of the cutaneous abſorbents are much dilated, and thereby imbibe a large quantity of putrid matter, then it ſoon reaches the maſs of blood, the fever ſoon comes on, and the ſymptoms are all of the worſt kind. If the morbid matter is very putrid, then the fever puts on the worſt form; if it is highly acrid and poiſonous, then the fever is of the peſtilential kind. If part of the morbid matter is abſorbed by the nervous abſorbents, then it ſoon reaches the brain, and brings on giddineſs, frenzy, coma, &c. the patient ſuddenly falls down, ſtaggers like a drunken man, or becomes ſuddenly light-headed and furious. This accounts how ſome people are infected with theſe fevers, the ſmall-pox, &c. and why others eſcape; as alſo why ſome people have that diſeaſe mildly, whilſt others have it in a moſt dangerous manner.

The milk fever is a ſeptic fever, produced by the return of the milk into the maſs of blood. For the milk, by ſtagnating ſome time in the breaſts, contracts a certain degree of acrimony more or leſs, according to the time it has ſtagnated, and according to the healthineſs of the woman, and the ſoundneſs of her juices. This milk, when it is conveyed into the maſs, acts as a ſeptic upon the blood, and produces a ſlight fever, and is the cauſe of that ſhivering which

women, that do not give ſuck, have upon the return of the milk. If the milk ſtagnates long in the breaſt it occaſions cancers, &c.

From what hath been ſaid we ſee that the body, in a healthy ſtate, both expires and inſpires; and as long as this expiration and inſpiration are regularly kept up, ſo long the perſon enjoys good health; but when that is interrupted and diſordered, he complains: and I challenge any one to produce an inſtance of one who regularly inſpired and expired in bad health, or one who is irregular, that enjoys good health. For the receſſion of the perſpirable matter internally occaſions, as I ſaid before, palpitations, nauſea, gout, rheumatiſm, nervous complaints, fevers, &c. which I ſhall ſoon, more at large, conſider. In the ſmall-pox we ought to be particularly watchful to keep up a free perſpiration, and at the time of exſiccation we are moſt carefully to prevent the retroceſſion of morbific matter internally; for if this ſhould happen, dangerous conſequences enſue; if it falls upon the meninges of the brain, it will cauſe a delirium, phrenſies, and epileptic convulſions; if upon the ventricle and inteſtines, then cardialgia, gripes, inflammations, and diarrhæas follow.

The matter of the other two cutaneous evacuations, viz. the *ſweat*, and *thick oily ſubſtance*, comes chiefly from the glands of the ſkin, and differs in different parts of the body. This filth or naſtineſs of the ſkin is an unctuous or fatty matter, inſenſibly collected upon the epidermis, where it thickens and forms a ſort of varniſh, which in time becomes prejudicial by ſtopping up the paſſages of cutaneous perſpiration; then the ſkin grows foul, an itching ariſes, which frequently happens in the ſmall-pox; it ſometimes occaſions ſcabs, dropſy, fever, &c. But ſweat never ariſes in a healthy ſtate of the body, except by violent exerciſe, baths, &c. It always indicates that the ballance between the veſſels and the fluids is taken off; when the force of the fluids exceeds the reſiſtance of the veſſels, and at the ſame time the functions too much increaſed, then the ſweat manifeſts itſelf. Inſenſible perſpiration ought not to be drawn out of the body any more than blood, unleſs it is corrupted by ſome diſeaſe. We ought not to be too forward in giving medicines to force a ſweat, in order to promote perſpiration; for in ſo doing we fruſtrate our own intention; for by too much forcing a ſweat we obſtruct perſpiration; as the more the glands, that ſecrete the ſweat, are dilated, the more the papillæ, through which inſenſible perſpiration flows, are compreſſed; and by the unctuous nature of the ſweat have many of their mouths ſhut up: therefore in forced, colliquative,

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and habitual ſweatings, the perſpiration is much obſtructed; and the beſt way to remove theſe complaints, is by promoting a free perſpiration. Two very remarkable examples I lately had of profuſe periodical ſweating cured by opening a free perſpiration. Sweat therefore ſhews the body is out of order; and the diſorder will continue till the cauſe, which excites the ſweat, is removed, and its effects corrected.

Perſpiration, in its natural ſtate, is regular and inſenſible, but, if much urged to become ſenſible, it approaches nearly to the nature of urine; and is ſometimes oily, thick, and fetid. Nay ſometimes, if the blood is much ſtirred and diffuſed, it becomes tinged with a few ſmall particles of blood that accompany it, as we ſee under the arm pits, eſpecially of porters, whoſe ſhirts are, as it were, tinged with blood, which is in general too fibrous to paſs off at the out-lets; which plainly ſhews the dangerous effects of too forcibly promoting a ſweat, by means of hot medicines at any time, but more particularly in a diſeaſed ſtate of the juices; for by theſe medicines, the juices, already in ſome degree putrid, make a ſudden progreſs, and ſoon become highly rancid.

Medicines ſhould be varied, according to the different nature of the matter to be evacuated. For the cutaneous diſcharges are manifold, and ariſe from the aqueous part of our drink, from crude chyle, &c. Sweat is wont to break out upon all thoſe that have weak bowels, at the time when the chyle ought to be mixed with the blood, as in phthiſical perſons; and ſometimes in women that give ſuck.

Sweat proceeds from concocted blood, chiefly in fat people, whoſe inſenſible perſpiration is daily diminiſhed; becauſe the fat ſtops up the veſſels, and they daily ſweat more. It proceeds alſo from the blood being too much diſſolved and attenuated, and from too great attrition of the veſſels: then a reddiſh, fat, acrid, terreſtrial and ſaline ſweat ariſes, that ſticks to the ſkin as if infixed into it. If the blood is violently moved through the veſſels, by great exerciſe, inflammatory fevers, &c. then the ſweat that breaks forth is replete with a ſalt, ſimilar to that obtain'd from diſtill'd urine, but not ſo fætid. Sweat is ſometimes morbid, and then it is very various. Sometimes it is quite watery, as in women with child, and conſumptive people, without ſmell, colour, or taſte; and ſeems to be the moſt diluted part of the blood. Sometimes it is very viſcid, ſticky, yellow, red, as the ſweat that frees people from the plague.

As there are various and quite oppoſite cauſes that produce ſweat, ſo it has various and quite oppoſite effects. Sometimes it diſſolves, ſometimes thickens

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the blood, according to the condition of the perſon from whom it is drawn. Various alſo are the applications to procure it, as waſhing the body, heating it by friction, violent motion, and various internal medicines. And there are various cauſes for drawing out ſweat. For example, in an anaſarca, we muſt ſtimulate, and expel what is ſlow and ſtopping; to do which, *Boerhaave* preſcribes *Theriac.* ℥2, *ſpt. juniper.* ℥iſs, *oxymel. ſcillitic.* ℥2, *deluantur in cereviſiæ meracæ vel hydromel* ℥9 *vel* 10, *ſumat æger & diſponat corpus ad ſudorem repetat. mane & veſpere.* The ſame, ſays he, is done with ſucceſs in other chronical diſeaſes, as the green-ſickneſs, and in the leproſy, becauſe all nouriſhment is ſtopt; therefore it is required to procure a ſweat, but not by aromatics, which heat the body internally; but in ſuch a manner as to make all hot externally, and waſh all away internally. Then he gives *Venice* ſoap ℥2 every day, divided into 24 pills for three days; after that he orders the patient to drink any antiſcorbutic decoction, as of guaiacum; and then to go into the hot bath.

Moreover, if any thing is to be reſolved about the firſt veſſels, as in diſeaſes of the breaſt, and other acute diſeaſes; and if the cauſe of the diſorder ariſes from an alkali, let him drink plentifully of honey, vinegar, or *Rheniſh* wine and water, relaxing the ſkin externally; and, in the middle of the ſweat, give a decoction with nitre. If the cauſe of the diſorder be from an acrid, then alkalines may be given: and ſo, in all caſes, we are to give things oppoſite to the cauſe of the diſeaſe.

There are various opportunities of procuring a ſweat; for at one time it ſucceeds more readily and happily than at another. Thus, in the ſmall-pox, from the firſt to the eighth day, ſweating is procured; and this ſeems to be a proper time for it. And the patient may be cured by continual ſweating, if the humours are copiouſly diluted, and the veſſels relaxed; but by all means we muſt avoid hot things: and indeed in all acute diſeaſes hot and drying things ſhould be laid aſide, as a moſt deſtructive practice; and only thoſe given which dilute the blood, and relax the veſſels; then the patient ſweats kindly, and has a laudable criſis. Sudorifics ſhould be varied, according to the various cauſes of the diſeaſe. Thus in a diſeaſe ariſing from an alkali; as for inſtance, a young man is ſeized in ſummer with a moſt ardent fever; to get the better of which, a very quick remedy is required, that is, a ſudorific. If it proceeds from too much dryneſs and inflammation, then diluters and ſtimulaters are indicated, becauſe of the obſtruction and defect of the powers, which indicate a ſtimulus: that the

diluters

diluters may operate the better, let a liquid medicine be given, and let the baſis of it be ſome diſſolved acid. Let *Rheniſh* wine be added for a ſtimulus, diluted with a large quantity of water; and, that it may have an antiphlogiſtic power, add a little nitre, for example, Vin. rhen. ℥8, nitri ʒ2, ſucc. limon. recent. expreſſ. ℥1, ſyr. viol. q. ſ. vel ad ℥2, diluantur hæc cum aquæ communis ℔4, ſingulis horis capiat ℥2 calide cum determinatione ad ſudorem; ſi vero leviter tantum ſudet, plus vini addatur; ſi minus plus aquæ. But if the cauſe of the diſeaſe is an acid, then inſtead of *Rheniſh* wine, let him take ſome other liquor, as ſal volatilis oleoſus. And if the cauſe be ſomething tenacious, let diſſolving ſalts be added.

Sudorifics are to be varied acccording to the various nature of the diſeaſe, which depends on the peccant matter, and the efficient or applying cauſe, that is, the vital power: thus if the matter is tenacious, we give ſtimulaters as alkalines; but if it is of the nature of the venereal diſeaſe, then mercury, determined to the ſkin, is the beſt remedy. Sudorifics ſhould be varied according to the different ſeats and degrees of the diſeaſe. Almoſt all medicines may be converted into ſudorifics: thus, if a purge is adminiſtered, and the patient is preſently diſpoſed to ſweat, there will ariſe a great expulſion of ſweat; and the ſtronger the purge is, the more copious will the ſweat be. And in chronical caſes, it is an arcanum to add purges to ſudorifics. It is the ſame with emetics and diuretics, if they are determined towards the ſkin.

The greateſt power of ſudorifics conſiſts in reſolving the fluids, and in opening the obſtructions of the veſſels. Now the fluids are reſolved, either by diluting or dividing; whereſoever therefore it is neceſſary to diſſolve, there ſudorifics are required. But the deobſtruent power of ſudorifics conſiſts in relaxing the veſſels, or in diſſolving their contents. Sudorifics, however, conſidered by themſelves, have a great power of inſpiſſating and obſtructing. Hence it is, that what remains, becomes thick, coagulated, and ſometimes as hard as a ſtone, afterwards by no art to be reſolved. Hence it is, that no inflammatory diſeaſes ſooner turn to a gangrene, than thoſe from violent exerciſe. Whilſt ſudorifics incraſſate, by rarifying and carrying off the more fluid part of the blood, leaving the groſſer particles to attract each other, and coagulate, whereby they become acrid and putrid; they alſo obſtruct, at the ſame time; for whilſt they conſume the fluid, the veſſels contract themſelves, and are ſtraitened; and their fibres grow ſtiff.

I have

I have ſhewn, that inſenſible perſpiration differs greatly from ſweat; which either comes upon the back of obſtructed perſpiration, or very ſoon occaſions it. For a perſon ſeldom ſweats, whoſe perſpiration is free and full; but if it is, at any time, interrupted, or too violently urged, by hot medicines, &c. which liquify the cellulous ſubſtance, or *corpus adipoſum*, and thereby fit it to paſs off through the cutaneous glands; and ſeeing many of their tubes open into the nervous and perſpiratory papillæ, ſo, being of a much more viſcid nature than the ſanctorian perſpiration, ſoon ſtops up theſe papillæ, either by furring up their ſides, plaſtering up their mouths, or by contracting their diameters. Hence we ſee that by unſkilfully endeavouring, and forcing perſpiration too much, we may fruſtrate our intention, and inſtead of promoting and forwarding perſpiration, we impede and hinder it; for whatever procures a diaphoreſis, if too much increaſed or continued, produces a ſweat.

If you relax the veſſels beyond the ſtandard of health, and increaſe the ſenſible excretion, you proportionably diminiſh the ſanctorian perſpiration; as we ſee in dyſenteries, &c. which have been ſuffered to continue too long; they obſtruct perſpiration, by relaxing the bowels, and giving the fluids a tendency inwards, and thereby bring on colliquative ſweats.

A diaphoreſis is promoted ſeveral ways, 1. By relaxing the emiſſary or outlets both internally and externally. The internal relaxers are warm water, ſweetened with honey, and in inflammatory burning fevers barley-water relaxes the conſtringed fibres; all that remove a ſpaſm of the veſſels, temperaters of acrimony and demulcents, as opium, crabs claws, and terreſtrial abſorbents; all decoctions, emulſions and oils, as decoctions of pellitory, mallows, &c.

The external relaxers are thoſe things which diſpoſe the external ſkin readily to tranſmit the fluids under an inſenſible form, but not the more thick and ſenſible. In order to which, the ſkin ought neither to be too lax nor too tight. Air moderately warm, and moderate exerciſe, an equal circulation of the fluids, which happens, when all the parts of the body equally reſt, or are equally moved, all determine the perſpirable matter to the ſkin; alſo all frictions, all warm baths; but if they preſs the body too much, they occaſion fainting. Inunction with mild oils, fats, marrows, &c. ſo far as they render the ſkin lax and ſoft; though of themſelves they rather ſtop perſpiration, as appears from the ancient wreſtlers, who, before their contention, anointed their bodies with oil,

oil, to make it ſupple, and to prevent its ſweating to bring on a laſſitude; alſo waſhing the body with ſaponaceous water. And if you deſign the perſpiration to be topical, mollify the part with baths and fomentations of emollient herbs, warm vapours, &c. This claſs of diaphoretics agrees in every diſeaſe, that ariſes from a very great cold, which is the greateſt injury to the external ſkin, rendering the veſſels rigid, and coagulating the fluids. For cold leſſens the pores of inſenſible perſpiration, by compreſſing the ſolid parts, ſo as to make them approach nearer each other, whereby the transflux through the moſt ſmall and extreme veſſels is hindered a little; then the perſon grows cold, but ſoon after he ſweats; becauſe the force of the heart remains, while the capacity of the veſſels is diminiſhed. Wherefore the ſame quantity of fluid (nay properly ſpeaking a greater quantity, becauſe part of the perſpirable matter is thrown back upon the internal veſſels) is carried through the canals, now made narrower; whence there is a greater motion and attrition, and conſequently a ſweat; and if not ſoon remedied, by internal diluters, an inflammatory fever enſues; which is very much increaſed by imprudently giving hot medicines, which accelerate the circulation of the blood, already too quick, and increaſe the attrition and heat of the parts; the blood is more ſubtiliſed, and leſs of it enters the lateral veſſels, which are no longer extended, but are dried up and coaleſce; then the ſkin becomes dry and ſhrivelled.

The uſe of medicines of this claſs agrees, where ſordes, ulcerations, or any morbid cruſts, ſcabs, ulcers, paraphantiaſis, or leproſy, adhere to the ſkin: as alſo in diſeaſes from an acrid externally impacted. Therefore ſeeing the plague upon its firſt attack is of the nature of poiſon externally applied, medicines of this claſs are of great ſervice in expelling it. And in the moſt acute diſeaſes, where the blood tends vehemently toward the internal viſcera, as in the ſmall-pox, Phyſicians make uſe of this claſs of diaphoretics with ſucceſs, though cordial and hot internal diaphoretics are religiouſly to be avoided in the ſmall pox, and indeed in any inflammatory diſeaſe. If there is a ſpaſm of the emiſſaries, which may be known by the dryneſs and hardneſs of the ſkin, we may uſe the diaphoretics of this claſs.

The ſecond claſs of diaphoretics contains the diluters and diſſolvers of the blood; alſo all thoſe medicines, which, by their heat and ſubtilty, divide, attenuate, agitate and rarify the humours to ſuch a degree, that they become fine enough to eſcape through the ſmall cutaneous paſſages, driving the fluids for-

wards, with whatever elſe they meet in their paſſage, to the pores and glands of the ſkin, to be expelled by inſenſible perſpiration, or condenſed into drops. Under this claſs are comprehended whatever ſqueezes and contracts the fibres of the ſolids, ſo as to force out of the extremities what lay before in readineſs for expulſion; of which matter there often is a great deal in the capillaries, or juſt at the ſurface, almoſt ſtagnating for want of ſuch ſhocks. Now the greateſt diluter is water, the power of which is increaſed by heat; hence warm water is a good diaphoretic. Some diſſolvents immediately diſſolve the fluids, and of theſe there is but one that can ſafely be given in acute caſes, namely nitre, and the preparations of it. But others diſpoſe the veſſels to act upon the fluids, and diſſolve them; thus vinegar, ſweetened with honey, and diluted with water, is an excellent diaphoretic in acute diſeaſes. All ſalts, by their cutting, penetrating quality, being mixed with the fluids, diſſolve and divide their moleculæ, by interpoſing themſelves; and, at the ſame time, by their ſtimulating quality, excite a great motion; increaſe the attrition of the veſſels; and ſo promote the comminution of the blood. All that reſtore the obſtructed motion in the internal parts; thus the paſſions of the mind reſtore obſtructed perſpiration. All acrid medicines, externally and internally, which ſtimulate the veſſels, as all fixed and volatile ſalts, vinegar and other ſtimulaters, however ſtrong, may be ſo enervated and mitigated, as to become diaphoretics: thus coloquintida, infuſed in a ſmall quantity of wine, becomes an excellent diaphoretic; corroſive ſublimate from gr. 1 to 2, mixed in ℥2 or 3 of rob of elder, and given to the quantity of one twentieth part of a grain for a doſe, is of great ſervice in chronical caſes: and Dr. *Huxham* ſays, that *Vitr. antimon.* ℥1, *vini montani* ℔1, *rad. Z. Z. pulv.* 3ı, *macera per dies* 4 *ſine calore & filtra per chartam, D. gut.* 20 or 30 in any proper vehicle twice or three times a day, is a moſt certain and ſafe diaphoretic, and has a wonderful efficacy in removing obſtructions, and deterging the inmoſt receſſes of the body, and may be ſucceſsfully given in fevers of the ſlow and intermitting kind, and eſpecially in ſciatica, obſtinate rheumatiſms, and gout. Alſo mercury and antimony liquify the blood and juices, and prepare the matter, by its tenuity, to permeate with eaſe the cutaneous glands; accordingly there is no better diaphoretic than emetic tartar, antimony, &c. Squills too, camphor, and ipecacuana, are uſeful diaphoretics. All that increaſe the force of the bowels, which divide our fluids into minutiæ; and if the cutaneous pores are ſufficiently lax, or rendered ſo by the application of medicines of the firſt claſs, then the fluid, ſo diſſolved, will tend towards the external

external parts. Now the force of the bowels is increaſed, by increaſing the elaſticity of the veſſels, which is done by every thing that renders the fibres of the veſſels more rigid and hard. To this claſs therefore belong whatever aſtringe, or rather contract the ſolids, by inſinuating themſelves between the interſtices of the laſt parts, and there ſtopping, whereby thoſe parts become more rigid, for the force of the larger veſſels ariſes from the aggregated force of the ſmalleſt, for every artery has its force from its ſides, which are compoſed of the ſmalleſt veſſels. The bark proves an excellent diaphoretic of the ſecond claſs, as it operates by its three qualities, viz. its bitter, aſtringent, and aromatic quality; and a little opium, or *Venice* treacle, joined to it, promotes its good effects. All aſtringent roots, auſtere wine and acids, are good diaphoretics. One may often ſee a perſon ſweat upon eating vinegar or lemon juice. Alſo ſudden fear, or other great paſſion, bodily exerciſe, as walking, riding, &c. prove uſeful diaphoretics. Muſcular motion increaſes a diaphoreſis; and if too vehement, expels the lypmh under the form of ſweat; and that which cannot be preſſed out is inſpiſſated or thickened. The ſame motion ſometimes attenuates, provided it is not too vehement, by increaſing the contractile force of the ſolids, and promoting the action of the fluids. But if the muſcular motion is too much increaſed, then the blood, in a manner, boils; and there ariſes a burning fever, if not prevented by diluting plentifully. All aromatics, warm, and ſubtile bodies, divide and attenuate the fluids, which makes them fit to go off by the ſmaller paſſages: but for their more manifeſt qualities we have placed them under other heads, and chiefly among the cephalics. What are collected under this head, are moſtly determined to the ſame intention by a like texture and diſpoſition of parts; but there is a difference between them and the common aromatics, which generally act as ſoon as ever they come into the ſtomach; and by the volatility of their parts divide and thin the juices in the *primæ viæ*; but go off, in a great meaſure, by ſome of the larger diſcharges: whereas the diaphoretics, here enumerated, ſeem not to have any thing, in their compoſition, ſo active, as to render them ſenſible, until they have paſſed the laſt comminution or digeſtion in the circulating blood, and there obtained ſuch a reſolution, as ſuits them not only for the cutaneous ſecretions, but alſo to break, and, as it were, fuſe the blood itſelf, thereby cauſing its thinner and ſerous parts to flow through the pores in great plenty. And this will not appear perhaps ſo ſtrange, when we conſider a manifeſt difference in our food, not unlike what we here aſſign to medicine. For ſome parts of our aliments are ſooner than others broke and

digeſted in the ſtomach and firſt offices; and ſuch always furniſh the greateſt ſupply to the emunctories, and go off moſtly by urine; whereas others, which have ſubtilty enough not only to paſs the lacteals, and get into the blood, but are too ſolid to undergo the laſt comminution, except by a long circulation, beſtow more matter both for nouriſhment and the finer ſecretions. For all nutrition and reſtitution of what is waſted, all accretion or augmentation of a ſolid fibre, is made only in the ſmalleſt nervous veſſels, and not in the greater, as in the arteries, veins, glands, lymphatics, and adipoſe veſſels; becauſe the augmentation or accretion of the greater entirely depend on the extenſion of the ſmalleſt lateral veſſels, which are nervous tubulæ, and make up the laſt ſides of the veſſels of all canals. Therefore nutrition, whieh is made by the application of any part to the place of a waſted part, happens in thoſe ſmalleſt canals, of which the greater conſiſt.

Thoſe ſubſtances or bodies, which obtain the name of diaphoretics, are ſuch as are capable of being divided into very ſmall and fine parts, which do not ſenſibly operate, until they are brought into the minuteſt veſſels, where their ſmallneſs and activity fit them both to paſs, and alſo to make way for many other particles to go with them.

As to what is ſaid of ſpecific diaphoretics, it is all trifling. For there are three things required for all ſecretion:

1. An application of the fluid to the orifices of the canals:

2. A determinate magnitude of the ſaid orifices:

3. A ſufficient force to impel the fluid within the canals.

If there is not matter enough, ſufficiently attenuated, or if there is an obſtruction, whereby that matter is impeded in its paſſage; then the body is not diſpoſed to ſweat; and by attempting to provoke it, you dry, heat and inflame the body; and in this caſe you may give an ounce of *Venice* treacle without procuring a ſweat.

We have now ſeen the nature of diaphoretics, and their manner of operation: and from that we may learn how reſerved we ought to be in adminiſtering hot diaphoretics; for there is ſeldom occaſion for them, except to kill the patient. But though hot ſudorifics are hurtful, yet proper diaphoretics, judiciouſly applied and doſed, may be made to carry off the morbific cauſe quietly, ſucceſsfully,

ſully, and without injury to the conſtitution. We ſee this in the plague, petechial fevers, and in other malignant diſeaſes. And if they can do this, in the moſt violent diſeaſes, what may they not perform in ſlighter caſes? It is ignorantly ſaid, that they carry off the ſerum, but not the groſſer humours, for the pores and glandules of the ſkin are as open as thoſe of the lungs, pancreas, and inteſtines, by which purgatives act; therefore groſs humours may be as well carried off this way, as by any other out-let, as theſe medicines attenuate the groſs humours, and fit them for paſſing.

CHAP. II.

Of INFLAMMATORY FEVERS.

HAVING ſaid what we think neceſſary in order to explain the nature of perſpiration; let us now apply what hath been ſaid to practice. And as in fevers of all kinds perſpiration is obſtructed, ſo I ſhall begin with fevers.

In inflammatory fevers, and in all inflammatory diſeaſes, as coughs, pleuriſies, rheumatic pains, inflammations of the ſtomach, peripneumony, &c. obſtructed perſpiration is always either the cauſe or the conſequence of a fever.

The primary cauſe may be irregularities in eating or drinking, unwholeſome food, putrid damps, hot air, exceſſive motion, &c. but moſt commonly cold.

The obvious effects of dry cold winds, on the human body, are a conſtringing of the whole external habit; a drying, ſhrivelling up, and corrugating of the ſkin, and a ſhutting up of the pores, and thereby leſſening perſpiration.

By dry cold alſo the whole ſyſtem of the fibres is made more ſtrong, firm, and elaſtic, and thereby the action of the veſſels on the contained fluids is more vigorous and forcible; whence a briſker circulation, more heat, ſpirit and activity. A dry cold air is heavy and elaſtic, and by its great preſſure upon the body, co-operates with its cold and dry qualities, in producing greater effects. Accordingly we ſee the blood, in ſuch a conſtitution of the air, conſtantly more denſe and viſcid, than in long, moiſt, warm ſeaſons. And patients ſubject to aſthmatic diſorders ſuffer moſt in north-eaſterly winds.

It is true indeed that perſons of a very viſcid ſtate of blood, and rigid fibres, are ſubject to inflammatory diſorders in all ſeaſons; but ſome conſtitutions of the air however are not only more apt to produce this inflammatory blood, but alſo diſpoſe more to inflammations of particular parts: for when very cold air conſtringes and obſtructs the capillary veſſels; if the conſtriction is greateſt in the lungs, then the inflammation ſeizes the lungs, and a peripneumony enſues; if the pleura, a pleuriſy; if the brain, or its membranes, a phrenzy; and if, prior to this violent inflammation of the blood, the fibres were very elaſtic, and the blood denſe, and in large quantity, then the diſorder proves proportionably more ſevere. When we perceive no part more affected than another, but only ſome general inflammatory ſymptoms, the diſeaſe is then ſimply called an *inflammatory fever*.

When cold air, &c. ſhuts up the pores of the ſkin, more blood than ordinary is forced upon the internal parts, particularly upon the lungs, which are deſigned not only to attenuate the blood, but to aſſiſt the ſkin in throwing off the acrid and putrid humidity of the blood; therefore when the pores of the ſkin are, in any degree, ſhut up, the exhalation from the lungs ſhould compenſate for the deficiency of the cuticular diſcharge. And accordingly we ſee, that immediately upon taking cold, the lungs are more or leſs affected by a cough; there is a large diſcharge of thin rheum; and very often they are ſeized in a much ſeverer manner. When the very cold air is continually admitted into the lungs, it alſo contracts their external membranes, ſhuts up the excretory ducts, and ſo hinders a due exhalation and expiration. We ſee very cold winds contract the ſkin of the hands, arms, and face, ſo as to make it rough and ſore. The pharynx and larynx are very often ſo affected by ſevere cold winds, as to ſuffer violent inflammations, tumors, &c. and if this happens to the ſkin of the face and hands, what may we not ſuppoſe the effects to be upon the delicate and tender membrane of the trachea arteria, bronchia, &c.

In truth the cough, hoarſeneſs, and ſoreneſs we commonly feel in breathing in a very cold air, plainly demonſtrate the bad effects of it. It is very eaſy therefore to conceive, when a greater quantity than ordinary of denſe, ſizy blood, is thrown upon that tender and delicate veſſel the lungs, and where the veſſels of the lungs themſelves are much conſtricted, and the excretory ducts and orifices of the glands of the wind-pipe, bronchia, &c. are conſiderably obſtructed, it is eaſy to conceive, I ſay, that peripneumonic inflammations, pleuriſies, rheumatiſms, &c. will be very readily generated.

Again

Again, as obſtructed perſpiration attends all fevers, and ſeeing the perſpirable matter is the moſt corrupted particles of the body, detached by putrefaction, we muſt then neceſſarily believe, that when they are retained in the body, at a time when, from a great degree of heat, the humours are moſt diſpoſed to putrefaction, they greatly promote it. For heat is a ſeptic of itſelf, and is excited in the body by a quick circulation, occaſioned by the elaſticity of the veſſels, &c. Then the putrid matter muſt act as a very ſtrong ſeptic upon our humours, ſo much prepared to receive infection; and as the *Fomes Morbi* is very powerful, ſo the effects are in the ſame proportion. Accordingly we ſee that ſtrong healthy people, whoſe ſolids are tenſe, if they are ſeized with a fever, it is moſt commonly of the ardent kind; and if they live ſome time under it, or if they loſe too much blood, ſo as to impair the *vis vitæ*, then if the greateſt care is not taken, the fever, before of the inflammatory kind, will change into a malignant one of the worſt ſort. For the fever having inflamed the parts at the firſt onſet, by highly agitating and rarifying the blood, ſo that by the ſtimulus and dilatation of the veſſels, ſome of the red globules are puſhed into the ſerous veſſels, and form obſtructions. The inflammation is kept up by the obſtructed perſpiration, intenſeneſs and duration of the heat, and by the exaltation of the animal ſalts and oils, till the putrefaction gets the better of the inflammation.

How full the blood is in inflammatory fevers, is evident from letting blood, which you always find, upon being expoſed to the air, to have an inflammatory cruſt, which is nothing elſe but the putrid particles, having time to diſengage themſelves of the ſerum, or rather being ſublimed, are entangled in the *craſſamentum*, or glutinous parts of the blood. Accordingly we find that by ſeparating the inflammatory cruſt from the other part of the blood, it ſoon evaporates, for the putrid particles are always the moſt volatile.

The primary ſymptoms of this diſorder are a ſcorching unequal heat, moſt ardent about the vital parts, but leſs in the extreme parts; which are, for the moſt part, cold; the breath extremely hot, the whole ſkin, noſe, and mouth, are dry; the reſpiration denſe, difficult and quick; the tongue rough, dry, yellow, black and parched; an unſatiable thirſt ſuddenly going off, a loathing of food, nauſea, vomiting, anxiety, reſtleſſneſs, and great wearineſs, a little cough, delirium, frenzy, obſtinate watching, coma, convulſions, with exacerbations on the even days.

This fever has this progreſs; it very often kills on the third or fourth day; and if it attacks the patient in the higheſt degree, it rarely exceeds the ſeventh

day, without proving mortal, if it is a perfect καῦσος. It often terminates by an hæmorrhage, which, if ſmall on the third or fourth day, is a mortal ſign; which may be predicted by the pain of the neck, heavineſs of the temples, a diſtention of the præcordia, without pain, dimneſs of ſight, involuntary tears, redneſs of the face, and itching of the noſe. This hæmorrhage is moſtly ſalutary on the critical day, on which alſo the fever is terminated by vomit, ſtool, ſweat, urine, and expectoration of thin matter. If it increaſes on the even day it is a very bad ſign. Black, thin, and bloody urine, in ſmall quantity, is a ſign of death. Difficult deglutition, and coldneſs of the extreme parts, redneſs and ſweating of the face, are bad ſigns. Inflammation of the parotids, without ſuppuration, and a flux, are mortal ſigns. If the fever is accompanied with a tremor, it brings on a delirium, and ſudden death. It often changes into a peripneumony with a delirium. That ſpecies of burning fever, which proceeds from violent pains of the belly, goes off commonly by a colliquative dyſentery. The principal indications of cure are to diminiſh the force of the blood, to relax the fibres, and to make a revulſion from the inflamed parts. The force of blood is leſſened by bleeding, which ought, upon no account, to be delayed. The quantity of blood to be taken away is to be judged of by the ſtrength of the patient, pulſe, intenſeneſs of the heat, greatneſs of the pain, and difficulty of breathing. While the blood runs from one arm, hold your finger upon the pulſe of the other arm; but if you find the pulſe riſe, take away a large quantity of blood, only be ſure to ſtop whenever the pulſe begins to ſink, flutter, or intermit.

Bleeding not only leſſens the velocity, but the quantity of blood, whereby room is made for diluting liquors, which ought to be poured in in great plenty; which not only cool, dilute and correct the acrimony of the fluids, but likewiſe relax the ſolids, which is the ſecond intention of cure. You may give water with ſugar, ſyrups, jellies, robs, fruit, juices of lemons, oranges, and barley-water, with nitre, &c. Small quantities ſhould be taken at a time, but ought to be often repeated. The tepid bath is an excellent thing to relax the ſolids, and promote perſpiration.

We ought next to cleanſe the *primæ viæ*, and evacuate the acrid bile; which may be done by glyſters, and gentle cooling laxatives, as manna, cryſtals of tartar, ſal catharticus Glauberi, infuſion of ſena, with emetic tartar gr. $\frac{1}{2}$ or 1. The air ſhould be pure, cool, free, and frequently renewed, the cloaths light; and the patient, when in bed, ſhould be put, as it were, in a ſitting poſture, and ſhould ſit up as much as poſſible, and even go abroad in the open air.

If

If there is anxiety, or any ſign of a delirium, it is hardly credible what good effects are produced by veſicatories; wherefore let ſharp and large bliſters, N° 1, 3 or 5, be applied to the head, inſide of the thighs and arms, &c. as the caſe requires, but above all things we muſt never neglect to apply a bliſter to the head.

For reſolving beginning coagulations, in any diſeaſe, in perſons of all ages, I have never found any remedy have ſo good and ſpeedy an effect as bliſters. The pedeluvium is often ſerviceable in refreſhing the patient, and leſſening the delirium. Cooling diaphoretics are likewiſe very uſeful, as *ſpt. mindereri* with a few grains of *Sal. C. C.* or *pulv. contrayerv. comp. nitre & camphor.*; or *vin. antimonial. julep. e camphor. aq. alexiter. ſpir.*; or *emetic tartar and Venice treacle*; or *antimon. diaphoretic. ipecacuan. elect. e ſcordio*; or *tar-water, ſquills*, &c. Theſe promote the excretions both by perſpiration and urine.

As bleeding is the principal remedy in the cure of all inflammatory diſeaſes, the delaying of it too long, or not repeating it often enough, in the beginning of bad colds, is the chief cauſe of their ending in dangerous inflammatory fevers, rheumatiſms, conſumptions, &c.

From the continuance of the complaint, the phyſician is to judge of the neceſſity of repeating this evacuation, which, in caſe of a ſtitch or difficulty of breathing, is never to be omitted, even in the advanced ſtate of a fever.

Another prevention conſiſts in early promoting a gentle diaphoreſis; and if theſe two indications are duly attended to, and timely performed, it will be a means of preventing many very dangerous diſeaſes, eſpecially of the inflammatory kind.

CHAP. III.

Of a PHRENSY.

HAVING now conſidered inflammatory fevers that do not affect any one part in particular, I ſhall here ſay ſomething of inflammations, that principally affect one part; as I think it is more methodical to conſider all the different ſpecies of inflammatory fevers, before I enter upon the other kinds of fevers. I ſhall firſt begin with the *phrenitis*, or inflammation of the brain, which is brought on by many different cauſes, as the uſe of ſtrong fermented

mented liquors, lying bare-headed in the heat of the ſun, anger, rough temper, a tranſition of the morbid matter of ſome other diſeaſe from ſome other part of the body to the brain. This ſymptomatic phrenitis or delirium is one of the moſt general of inflammatory ſymptoms.

A phrenitis is known to be preſent by a fierceneſs of looks and actions, and continual acute fever, great heat, redneſs of the eyes and face, diſordered and turbulent ſleep, diſordered ſenſes, &c.

An original inflammation of the brain requires immediate large and repeated bleeding; it often kills on the third, fourth, or fifth day, and ſeldom laſts ſo long; it often terminates in lethargy, coma, &c.

The ſymptomatic phrenitis is alſo cured by opening a vein, if the pulſe will bear it, if not, the cure muſt be attempted by leeches and bliſters. The feet ſhould be bathed, and acrid cataplaſms applied to them; and if that does not ſucceed, the feet ought to be bliſtered. Purges of the ſaline kind may be given, and camphor with nitre. Great quantities of diluting nitrous draughts ought to be given, and glyſters of the like kind, with ſome lenitive electary, &c. ſhould be frequently injected.

Chap. IV.

Of the Opthalmia.

NEXT in order comes the opthalmia, or inflammation of the eyes. This ariſes from cold, ſcorching heat of the ſun, duſt, or any other cauſe that can produce an inflammation. The ſlighter caſes may be cured without bleeding, but if any degree of fever be joined, or the inflammation great, bleeding is abſolutely neceſſary; and the more violent the inflammation is, the greater quantity of blood muſt be taken away. Bleeding with leeeches is very efficacious. If the inflammation requires plentiful bleeding, I commonly firſt bleed in the foot, and afterwards, at different times, as the caſe requires, apply leeches to the external angle of the eye. After bleeding I direct the uſe of the pedeluvium; and then the eyes ſhould be bathed with a little tepid milk and water. Then the patient goes to bed, and next morning takes a cooling purge, as *Glauber*'s ſalts, cream of tartar, infuſion of ſena, &c. If the inflammation does not yield, a bliſter is to be put upon the back of the head, which ſhould remain

remain ſome time, or a freſh one put on. Cataplaſms are to be applied to the feet, and a briſk purge to be given next day, and the eyes anointed with the following linement.

℞ *Ung. alb.* 3ſs, *ſacchar. ſaturn.* ℈i *M. quibus ſuper porphyr. ſtmul tritis, inſtillantur balſam. traumatic.* 3ß. *Hujus paululum linteo exceptum oculo dolenti, omni nocte imponatur*, or *Salom*'s ointment.

Slight inflammations are removed by fomenting with warm milk and water, with a very ſmall portion of brandy, and anointing the eyes with the *unguentum ophthalmicum*, &c. at night.

But in bad caſes, when the inflammation hath yielded a little to evacuations, the coagulum aluminoſum, ſpread upon lint, and applied to the eyes at bed-time, is an excellent remedy. If the pain is very violent, a decoction of poppy heads may be uſed as a fomentation, and the ſyrup of roſes and meconium may be mixed with the unguentum tutiæ, and applied to the eyes at bed-time.

CHAP. V.

Of SORE THROATS.

THE inflammatory ſore throat is occaſioned by any cauſe, able to procure an inflammation; every thing which doth direct the cauſes of an inflammation chiefly to the larynx, pharynx, os hyöides, and its muſcles, and to the ſuperior parts of the wind-pipe in general.

This inflammation is dangerous, in that it often brings on a ſudden ſuffocation, therefore it requires ſpeedy and large bleeding, purging and bliſtering. Sir *John Pringle* adviſes a piece of thick flannel moiſtened with two parts of common ſweet oil, and one of ſpirit of hartſhorn, to be applied to the throat, and renewed once in four or five hours; by this means, ſays Sir *John*, the neck, and ſometimes the whole body, is put into a ſweat; which after bleeding, either carries off, or leſſens the inflammation. He ſays he never obſerved great benefit from gargles, and he is of opinion that ſuch as are very acrid, do more harm than good, in the inflammatory angina, by contracting the emunctories of the ſaliva, and thickening the humour. But a decoction of figs ſeems to have a contrary effect, eſpecially if you add a little of the ſpirit of ſal ammoniac, or a

dram of crude ſalt to a pint of the liquor, by which the ſaliva may be made thinner, and the glands brought to ſecrete more freely, a circumſtance always conducive to the cure.

Beſides a bliſter to the back, Sir *John* ſays, that, in bad caſes, he has laid one acroſs the throat. This practice, I ſaw ſome years ago, purſued with great ſucceſs. Bleeding under the fauces, or under the tongue, does good; but if there is an abſceſs formed, which the lancet cannot reach, its breaking will be haſtened by a common vomit.

If in the inflammatory quinſy the lung-pipe only is affected, in its internal muſcular membrane, without offending the adjacent parts, then ariſes a tumour, heat, pain, and a hot acute fever in that part, without any other external apparent ſigns; the voice grows ſhrill, hollow, hiſſing, and inſpiration occaſions acute pain; the breath ſmall, frequent and upright, with extreme working and panting, the pulſe wavering, great anguiſh and ſudden death. If the larynx chiefly is affected, the ſeat of the diſorder is in the white muſcle of the glottis, and the fleſhy muſcles, whoſe office is to ſhut the ſame, this quinſy ſoon ſtrangles. This quinſy, beſides the ſymptoms already mentioned, is attended with a great pain in ſwallowing, or ſpeaking very ſhrill, and ſqueeking voice, the utmoſt anguiſh and ſudden death. If the muſcles of the os hyoïdes and larynx are only affected, then the breathing is pretty free, ſwallowing at firſt painful, with other ſigns of inflammation. When the pharynx is only affected, the breathing is then eaſy, ſwallowing painful, and even impoſſible, for it all comes back through the noſtrils, hence a decay and drying up of the humours for want of meat and drink, the fever is not very high, and death does not come till the diſtemper has been of a pretty long continuance. But if the tonſils, uvula, its membranous cover, or its four muſcles are affected, then breathing is troubleſome and very difficult, meat, drink, and medicines return into the mouth again, becauſe of the conſtriction and violent pain, perpetual hawking, a continual dropping of phlegm towards the cavities of the tonſils, acute pain on the inſide of the ear, and the paſſage of the jaws thither, cracking of the ears in ſwallowing, and ſometimes an entire deafneſs. If all theſe ſorts do invade together, or ſucceſſively, then the ſymptoms are more in number, and dreadful in effect; the return of the blood being hindered raiſes a tumour of the jaws, lips, tongue, and face; the tongue hangs out, twiſts, enflames, the eyes grow red, and jut out, the brain is obſtructed, the ſight, hearing, and feeling dull, a delirium

delirium comes on, the mouth opens, the patient ſnoars, and cannot lie down without being ſuffocated. The redneſs, pain, tumour, and pulſation often appear in the breaſt and neck. Every quinſy doth run over all the uſual ſtages of the general inflammations, doth occaſion the ſame, and undergoes the changes into a reſolution, impoſthumation, gangrene, or ſchirrus; if the inflammation is recent, then the patient muſt be blooded in large quantities, even to fainting; the belly muſt be looſened by ſtrong purges and glyſters, often repeated; the diet muſt be moiſt and ſoft; the medicines ought to be of the nitrous and acid kind, the parts fomented, and warm ſteams conſtantly received upon the affected parts, derivations by bliſters, the pedeluvium and ſyringing ought not to be neglected; but if theſe things have been neglected, or uſed too late, and the patient in eminent danger of ſuffocation, then bronchotomy is to be called in. But if the quinſy has got to ſuch a height that the part begins to ſuppurate, then ought it to be treated as an impoſthume; if it turns into a gangrene, it is in vain to attempt any remedy, for there is no poſſibility of a cure. This is known from the general ſigns of a gangrene, and from peculiar ſigns, when an apparent redneſs and tumour ſuddenly diſappear, without great cauſe or effect, if the pain alſo goes off in like manner, if the jaws are ſuddenly grown ſmooth and even, dry and livid; then the gangrene is unavoidable. A quinſy, from the tonſils, uvula, and palate, being affected, will end in a ſchirrus of thoſe parts which is eaſily known. The cure may be made by reſolution, and the humour reabſorbed into the maſs, and from thence evacuated, for which the internal and external uſe of the cicuta will do wonders; but ſometimes it is impoſſible to reſolve a ſchirrus; in that caſe, if the ſituation will allow, it ought to be extirpated with the knife, or by cautiouſly lodging a cauſtic in the midſt of the tumour.

There is a kind of quinſy called *convulſive*, which epileptic, hyſterical, and hypochondrial people are ſubject to. This quinſy ariſes from a flatus occupying thoſe parts, the nature and cure of which I have already mentioned.

Chap. VI.

Of the Oedematous Quinsy.

THE watery, œdematous, and thin catarrhous quinſy is attended with difficulty of ſwallowing and breathing, with a lymphatic, watery, cold tumour of the parts, which ariſes from an obſtruction of the circulation of the lympha.

lympha. The cure is performed with bliſters, cathartics, and diuretics, warm, dry, and generous food, and little drink: In this quinſy too, good effects will ariſe from the uſe of the cicuta, bark, bliſters, and camphor, &c.

CHAP. VII.

Of the ANGINA MALIGNA.

WE now come to the *Angina Maligna*, or ulcerous ſore throat. This is a partial malignant fever, and has for its primary cauſe contagion. The attack of this diſeaſe is very different in different perſons, which difference ariſes from the ſtate of the body at the time of infection. Sometimes a rigor, with ſome fullneſs and ſoreneſs of the throat, and painful ſtiffneſs of the neck, are the firſt ſymptoms, ſometimes alternate chills and heats, with ſome degree of head-ach, giddineſs and drowſineſs, uſher in the diſtemper, others are ſeized with much more feveriſh ſymptoms, great pain of the head, back and limbs, oppreſſions at the præcordia, with continual ſighing: ſome grown perſons are neither ſick nor well at the firſt attack, not knowing whether to go to bed or buſineſs, being uneaſy and anxious: in the beginning however the moſt common ſymptoms are chills and heats, load and pain of the head, ſoreneſs of throat, and hoarſeneſs, ſome cough, ſickneſs at the ſtomach, frequent vomiting, or purging, great dejection of ſpirits, very ſudden weakneſs, great load at the breaſt, faintineſs, the pulſe thick, ſmall and fluttering, the urine pale, thin and crude, or in ſmall quantities, high coloured, or like turbid whey, the eyes heavy, reddiſh, and full of water, the countenance often full, fluſhed and bloated, though ſometimes pale and ſunk. The exacerbations conſtantly return every night, through the whole courſe of the diſeaſe, and though the patient is pretty well in the day, he has more or leſs of a phrenſy at night. Soon after the ſeizure the throat is ſore, and ſwells, the tonſils become very tumefied and inflamed, and many times the parotid and maxillary glands ſuddenly ſwell very much, ſometimes ſo much as to threaten ſtrangulation. The fauces very ſoon appear high-coloured, of a florid red, or rather of a bright crimſon colour, very ſhining and gloſſy, and moſt commonly on the uvula, tonſils, *velum palatinum*, and back part of the pharynx, ſeveral whitiſh or aſh-coloured ſpots appear ſcattered up and down, which ſometimes increaſe very faſt, which are the ſloughs of ſuperficial ulcers, which ſometimes ſeat very deep into the parts. The tongue, though

though at this time only white and moiſt at the top, is foul at the root, and covered with a thick, yellowiſh, or brown coat; the breath now is very nauſeous; which offenſive ſmell increaſes daily; every day theſe ſymptoms become more and more aggravated, the fever much more conſiderable, the reſtleſſneſs, anxiety, and difficulty of ſwallowing greater; the head very giddy, pained and loaded, ſometimes a pervigilium and perpetual phrenſy; ſome lie very ſtupid, but often ſtarting and muttering to themſelves; the ſkin very hot, dry and rough, frequent vomiting or purging, eſpecially in children. The ſloughs increaſe in bulk, and become of a darker colour, and the ſurrounding parts become of a livid hue; breathing now is very difficult, with a kind of rattling as if the patient was actually ſtrangling; the voice hoarſe and hollow; the breath now inſufferably fætid, eſpecially towards the criſis; and many, about the fourth or fifth day, ſpit off a vaſt quantity of ſtinking, purulent mucus, tinged ſometimes with blood, and ſometimes quite livid, and of an abominable ſmell; the noſtrils are ſometimes greatly inflamed and excoriated, continually diſcharging a very ſharp ichor or ſanious matter, ſo very acrid as to corrode the lips, cheeks and hands of children, and occaſions almoſt an inceſſant ſneezing, eſpecially in children; a ſudden ſtoppage of this rheum will actually choak children; and if it is ſwallowed it will occaſion excoriation of the inteſtines, violent gripes, dyſenteries, &c. If it ſuddenly and violently falls upon the lungs it kills in a peripneumonic manner. Sometimes an exanthemata attend the angina; in general however an efflorescence breaks out on the ſurface of the body about the ſecond, third, or fourth day, ſometimes partial, at other times over all the body, which ſeldom or ever fails to give ſome relief to the patient, as to anxiety, ſickneſs, vomiting, purging, &c. when ſucceeded by a very copious deſquamation of the cuticle; but when the irruption turns of a duſky or livid colour, with purple or black ſpots up and down, or prematurely and ſuddenly recedes, every ſymptom grows worſe, then the urine grows limpid, convulſions come on, and death will ſoon end the tragedy. The diſeaſe commonly is at the height in young people about the fifth or ſixth day, and in older people the criſis is not till the eleventh or twelfth, and then very imperfectly. If a gentle ſweat comes on the third or fourth day, if the pulſe becomes more ſlow, firm and equal; if the ſloughs of the fauces caſt off in a kindly manner, and appear tolerably clean and florid at the bottom; if breathing is more ſoft and free, and the eyes have ſome degree of vigour and quickneſs, then a ſalutary criſis will follow with a continuance of the ſweat, turbid, ſubſiding, farinacious

nacious urine, plentiful expectoration, and a large desquamation of the cuticle. But if a rigor comes on, and the exanthemata suddenly disappearing, or turning livid, if the pulse becomes very small and quick, the skin remaining hot and parched, breathing difficult, eyes dead and glossy, the urine pale and limpid, and a phrensy or coma succeeding, with a cold clammy sweat on the face or extremities; and if there is a singultus, and croaking and gulping in the throat, attended with sudden liquid involuntary livid stools, very fætid, then death is near at hand.

In the cure of the angina maligna we are by all means to avoid bleeding, as we value the patient's life; indeed in the very beginning if there is a plethora, great heat and dryness of the skin, and a laborious breathing, then you may take away a little blood, but this operation is upon no account to be repeated. If the patient is costive, the indurated fæces ought to be discharged by means of a gentle glyster of milk, sugar, and salt, &c. if the patient is attacked with a purging, then you may give toasted rhubarb with species e scordio decoct. alb. or species fracastorij Fulleri, &c. the next thing is an emetic, which in no case ought to be neglected even to the youngest children, antimonials are proper for adults, ipecacuanha or squills to children, then the saline mixture of salt of wormwood, juices of lemons, pul. contrayerv. C. with aq. alexiter. may be given; and in the intervals the volatile tincture of the bark, tincture of myrrh and camphor diluted with water; if the fever runs high, camphor and nitre made up with rob of elder-berries may be successfully given; every now and then a gentle vomit is to be given, about the third day in place of the volatile tincture of the bark, the compound tincture and decoction of it with sal succini or the elixir vitrioli, with the tincture of the bark, may be used, because larger quantities of it may be given at a time; the feet are always to be bathed every night, and when the patient is got into bed, he ought to have a mild cordial diaphoretic, as vinum emetic. camphor. tinct. cort. peruvian. vol. with aq. alexiter. or the camphorated julep; the fumes of chamomile flowers, myrrh, camphor and vinegar may be received into the mouth. There is an absolute necessity of washing the mouth often with gargles made of decoction of figs, red rose leaves, myrrh, honey, mucilage of quince-seeds, syrup of black currants, spirit of vitriol, vinegar of squills or tincture of the bark. Blisters or acrid cataplasms are to be applied to the throat and nape of the neck. The fæces should be always carefully evacuated, and the patient never suffered to be costive. The food should be thin with a little rhenish or port wine.

CHAP.

CHAP. VIII.

Of a PERIPNEUMONY, VOMICA, CONSUMPTION, IMPOSTHUME, *&c.*

WHEN the inflammatory fever affects one part in particular, then the fever receives its name from the part affected, as a phrenitis, opthalmia and quinsy. But having already treated of these three diseases, I now come to consider the peripneumony or inflammation of the lungs, which is very common. It is attended with a short difficult breathing, load at the breast, a cough, sharp or obtuse pains in all parts of the breast, both behind and before, as well as in the sides, and sometimes so low down in the back, as to be mistaken for nephritic.

The true peripneumony has always more or less of a fever. We are not however to confound it with these inflammatory pains and difficulty in breathing, with some spasmodic stitches that seize the muscles of respiration, but are not accompanied with a fever, and may be removed by externals only; nor with certain flatulent pains of the sides, to which hypochondriacal and hysterical people are liable, when brought low by sickness or a disorder of the bowels.

These pains are owing to confined wind, or pent up excrements in the colon next the diaphragm, or to crudities and indigestion, a flying gout, &c. They generally strike from the breast to the back, or from side to side; they very much affect the breathing, and are sometimes attended with a short and frequent cough: but the fever, hard pulse and sizineſs of the blood, with other marks of a true peripneumony, are wanting.

Here bleeding does great hurt; for the patient is commonly low, and the pulse weak, but carminative laxatives, opium, musk, diaphoretic antimony, paregoric elixir, &c. with warm external applications, as the cephalic plaster with opium and camphor, or a blister to the part do good, and very soon gives ease; warm fomentations and baths, or flannel dipt in camphorated spirit of wine, and laid upon the place, and frequently renewed, presently gives relief.

A peripneumony is commonly attended with more danger than a pleurisy, and the rather, because outward applications cannot operate so directly upon the

lungs, as upon the pleura: but even in this caſe bliſtering is moſt to be relied upon, after bleeding. The back may be firſt bliſtered, then both ſides; bliſters too may be put upon the extremities, for they often relieve the breaſt and promote expectoration. After the application of the epiſpaſtics, large and repeated bleeding muſt be uſed, with great quantities of cooling, relaxing and diluting drink and medicines; the diet ſhould be thin and ſoftening. Great regard muſt be paid to the different ſtages and ſymptoms of a peripneumony. For though, at firſt, large and repeated bleeding in the vena ſaphæna, or cupping the ſhoulders, is indiſputably neceſſary; yet after the ſecond and third bleeding, when the ſputum or ſpitting of well concocted matter, tinged with blood, begins, then bleeding muſt be cautiouſly, if at all, uſed; and the bark, muſk, antimony, gum ammoniacum, ſquills, myrrh, paregoric elixir, &c. given. Then bleeding would not only ſuppreſs the expectoration, but alſo weaken the patient; and yet if a conſiderable quantity of thin florid, ſpumous blood is ſpit up, the patient ſhould loſe a little blood, and the cough may be quieted with diacodium, &c. giving at the ſame time plenty of proper acids with ſoft cooling incraſſants. If the expectorated matter is thin, gleety and dark coloured, it is generally a mark of great malignity.

If a perſon, juſt before in full health, ſhould, on violent exerciſe, cold, debauch, &c. be ſeized with a great ſhivering, ſucceeded by a burning heat, a great oppreſſion and load at the breaſt, a difficult, quick, and hot reſpiration, with more or leſs of a cough, great anxiety and heat about the præcordia; though the pulſe be oppreſſed, irregular or ſluggiſh, blood is to be drawn in a large quantity from a large orifice, even to fainting, always untying the ligature when the blood appears. But yet in bleeding we muſt conſider the age and ſize of the perſon; for all do not bear bleeding alike, neither the fat nor corpulent, the very old, nor the very young bear bleeding ſo well as the lean, muſcular, or middle aged.

If the ſymptoms are not relieved by the firſt bleeding, then more blood ſhould be drawn, and this repeated, if the fever, oppreſſion, anxiety, and difficulty of breathing increaſe, or continue equally ſevere, eſpecially if the blood appears very firm and denſe, or covered over with a tough yellowiſh coat or buff; but if the *craſſamentum* of the blood is of a looſe texture not covered with buff; if the pulſe ſinks, flutters, and grows weaker and ſmaller upon bleeding, it is time to deſiſt; if the blood has a bluiſh film, with a kind of ſoft greeniſh jelly immediately underneath, it is a ſign of great arcimony; if the blood is very

very florid, and thin, with little or no ſerum upon ſtanding, in this caſe a repeated bleeding would bring on a nervous fever with tremors, *ſubſultus tendinum*, profuſe ſweating, atrabilious diarrhæa, &c.

In ſome very violent peripneumonies, where both lobes of the lungs are greatly inflamed and obſtructed, an immediate and exceſſive weakneſs comes on, with an inexpreſſible anxiety, oppreſſion at the breaſt, a ſmall weak trembling pulſe, coolneſs of the extremities, with clammy, coldiſh and partial ſweats, the eyes ſtarting, fixed and inflamed, the face bloated, and almoſt livid; then comes on a ſtupor, delirium, &c. This is indeed a very dreadful caſe, and is occaſioned by the ſtagnation of the blood in the lungs; if any thing can be done in this moſt deplorable caſe, it is by an early and immediate bleeding. The urine is commonly of a dark dull hue, or of a fiery lixivial colour, as if a ſmall portion of blood was diſſolved in it; this is rendered in ſmall quantity without any ſediment.

As all inflammations of the lungs either quickly choak the patient by hindering the paſſage of the blood through them, or terminate in ſuppuration, ſchirrus, or gangrene, if the obſtructed matter is not kindly reſolved or digeſted, we ſhould as early as poſſible endeavour to take off the inflammation by bleeding in due quantities; but when an abſceſs is actually formed, bleeding can be of no uſe, nay, when the phlegm is too far advanced to be reſolved, bleeding will hurt: for by this means the matter is made to ſtagnate longer, and thereby grows more and more acrimonious, and, by affecting the adjacent parts, forms a much larger impoſthume than would have happened at firſt, if nature had been left to herſelf; nay, many times it ends in a gangrene, and ſometimes in an obſtinate ſchirrus, making the ſhort remains of life very miſerable.

If the peripneumonic ſymptoms continue with great violence for four, five, or more days ſucceſſively, an abſceſs or mortification is juſtly to be feared, and little advantage is to be expected from bleeding; but then if the pain intermits and returns again, then you may bleed with advantage; if the pain ſeizes another part of the breaſt, it is a ſign that a new inflammation is forming, which indicates bleeding as much as at firſt. The ſecond attack of pain commonly puts an entire ſtop to the expectoration, though free and copious before. Along with bleeding we muſt not forget the uſe of a cooling diluting regimen, large and frequent draughts of diluting and emollient decoctions, acidulated with the juice of a lemon, together with nitrous and relaxing ſaponaceous medicines;

alſo antimonium diaphoreticum, camphor, &c. and a moderately cool and free air. Few or no peripneumonies, or pleuro-peripneumonies end well without a free and copious expectoration; for this is the natural criſis of theſe diſeaſes; and the more early, large, and free, the concocted expectoration is, ſo much the better; it is at the beginning crude and thin, but ſoon becomes of a whitiſh yellow colour, and great conſiſtence; when matters proceed regularly, about the third day, it is commonly ſtreaked, or tinged with blood: This is to be promoted by drinking freely and often of cooling, relaxing, and gentle ſaponaceous diluents, ſuch as whey, barley-water, ptiſan, with liquorice, figs, &c. infuſions of pectoral herbs, as ground-ivy, maiden-hair, colt's-foot, hyſſop, &c. ſweetened with honey, and acidulated with the juice of a lemon or orange, and the patient ſhould be perpetually ſipping warm infuſions made from one or more of theſe herbs; and this operation may be promoted by inſpiring the vapours of warm water and vinegar, camphor, &c. An emetic is of great ſervice, eſpecially when expectoration is ſuddenly ſuppreſſed, and to procure a puke nothing is better than ſquills, with antimonial wine, which ought to be taken at this time. Gum ammoniac. with ſalt of wormwood, and aſafœtida, is a good expectorant, as is ſoap, with a few grains of ſquills; where very ſoft, demulcent, lubricating medicines are indicated, the following are good, as *Sperma cæti, ol. amygdal. dul. ol. palmæ chriſti ſyr. ex alth. ſyr. papav. errat. &c. mucilage of quince ſeeds, marſhmallows, with rob of elder berries, or black currants; alſo nitre, camphor*; likewiſe *lac ammoniac, myrrh, diaphoretic antimony, ſquills, bark, and paregoric elixir*; *ſperma ceti boluſes with gr. ſs to* 1 *of emetic tartar.* There is great danger in giving ſtrong expectorants in the beginning, before you have bled ſufficiently, and applied bliſters, which ought to be put on as ſoon as poſſible, even before bleeding. Before expectoration is attempted, the matter ſhould be well concocted; and as expectorating medicines alſo operate by ſtool, ſo we are to be careful not to bring on a purging. Sometimes there happens a rupture of the arteries of the lungs; then there is a great deal of florid, ſcarlet-coloured, frothy blood ſpit up, with a cough, noiſe and rolling in the lungs; the blood is mixed with ſome ſmall fibres and membranes of the arterial, venal, or bronchial veſſels. This extravaſated matter is ſometimes ſpit up in form of a bloody ſanies, or livid black clots, or concretions; but is commonly with ſuch difficulty, and ſo violent a cough, as even to increaſe the extravaſation; and the matter is generally ſo imperfectly ſpit up, that much remains in the lungs, which ſtuffs them up, compreſſes the ſurrounding veſſels, and at length

length putrifies and corrodes all around it; hence a ſpeedy ſuffocation, a dangerous vomica, a gangrene, mortification, and death enſue.

That this will happen, may be foretold to a certainty, by making the following obſervations. If the urine is well digeſted in the beginning of the illneſs, but grows thin about the fourth day; if in the height of the illneſs, the patient muſt be ſet upright; if he voids purulent matter, by ſtool, without being eaſed; if there is a ratling in the throat as if the lungs were full of matter; if the diſeaſe be very violent in a very dry conſtitution, and in bodies that are hardened by their way of living and exerciſe; if there is a very bad ſort of dropping of blood from the noſe; if it is a dry one with red ſpots over the breaſt, which argue that the inflammation has ſpread itſelf throughout; if a ſtrong defluction of ſharp matter from the brain, with violent ſneezing hath preceded, or doth follow; if it took its riſe from a hot burning fever; if there appears immediately after the ſixth day a bilious ſpittle with pus; if the ſpittle has been from the beginning very bloody, of an entire yellow or white colour, and very frothy, or of a filthy dark brown, like the lees of oil, or of a black, livid, uneven or ruſty colour, not allaying pain; if neither the fever has abated, nor the breathing mended, the patient dies on the ſeventh or ninth day, and you may ſee death coming on a-pace: then the patient grows cold all over, only the breaſt, neck and head, are in an apparent heat, and are covered with a kind of damp ſweat; the cheeks firſt glow, and then turn to a livid paleneſs.

If no reſolution has happened before the fourth or fifth day; if the ſymptoms continue obſtinate, with a continued delirium, a ſoft and floating pulſe; if the patient is often taken with ſlight ſhiverings, ſometimes in one place, ſometimes in another, without any viſible apparent cauſe from without. If the pain relents, and the difficulty of breathing remains, and a little troubleſome fever hangs upon the patient, eſpecially at night, you may conclude that an impoſthume is gathering, or death approaching. If the foregoing ſigns have already laſted their uſual time, if a conſtant dry cough increaſing after meals or motion, a difficult ſhort breathing, with increaſed ſtuffing and rattling after meat or motion, when the patient can only lie on one ſide, and loſes his ſtomach, is very dry, ſweats in his ſleep, chiefly about the throat and forehead, makes frothy urine, looks pale with a hypocratic face, grows very lank, and extremely weak, with an inexpreſſible anguiſh, then you may conclude that an impoſthume is already formed; and as the ſharpneſs, quantity, and putrefaction daily increaſe, the membranes containing the ſame are daily dilated, eaten, conſumed, and made thinner; the blood and bronchial veſſels are converted into

pus;

pus; the whole ſubſtance of the lungs, or one of its lobes, is alſo converted into pus, and the matter gains ground every day in the ſubſtance of the lungs; and a vomica or concealed ulcer is formed, which ſo far eats into their ſubſtance, that the whole habit of the body is thereby conſumed, and the patient is ſaid to be in a conſumption of the lungs; the origin of which ulcer is deduced from any cauſe, which is able to ſtop the blood in the lungs, ſo as to be unavoidably changed into purulent matter, it may be owing to that very conſtitution of body which occaſioned the patient firſt to ſpit blood, and changes the wounds of the lungs into an ulcer. This conſtitution we find in a tenderneſs of the arterial veſſels, and the impulſe of the blood, when any way acrimonious; alſo from too great a ſenſibility and irritability of the lungs in particular, or from a neglected cold. Here opiates, muſk, antimony, the bark, and balſamics, are proper.

A conſtitution liable to a conſumption is known by ſeeing the make of thoſe ſlender and tender veſſels, and of the whole perſon, by the length of the neck, by the flatneſs and narrowneſs of the cheſt, depreſſed low ſhoulders, by the blood being florid, thin, looſe, ſharp and hot, a white fair complexion with roſy cheeks, a ſhining ſkin, a gay temper, and acuteneſs of wit and underſtanding. In that weakneſs of the bowels, which occaſions the aliments, which of their nature are too tough, and create obſtructions, putrefactions, and become acrimonious, and by theſe ill qualities ulcerate the torn veſſels, after a preceding ſpitting of blood. This is known by a ſmall fever, a dry cough, an increaſed heat, redneſs of the lips, mouth and cheeks, moſt apparent about the time that the new chyle doth enter into the blood, by a propenſity to ſweat in ſleep, a weakneſs, and great panting upon the leaſt motion. At the age when the veſſels, having reached to their full growth, do reſiſt a further endeavour to ſtretch the ſame, while the blood is increaſed in quantity, ſharpneſs, and ſtrength of motion; in hereditary diſpoſitions ſpitting of blood may be brought on not only by a pleuriſy, peripneumony, but alſo by the interruption of the uſual evacuations, as the piles, monthly courſes, cleanſings after child-bed, bleeding at the noſe, omiſſion of bleeding at uſual times, eſpecially in plethoric people, and ſuch as have loſt a limb, by any great force or wound upon the lungs, by a diet of ſalt, ſharp, and aromatic meat or drink. It firſt attacks with a ſlight pain, a moderate heat, and narrow preſſure of the cheſt, with a ſoft, ſmall, and waving pulſe, a panting, and ſalt taſte perceived before ſpitting. When there is an impoſthume formed it may terminate many

different

different ways; it may ſuffocate the patient, either by obſtructing the circulation, or by breaking ſuddenly; therefore all means ought to be uſed to break it, leſt it break in the night. It may empty itſelf by purulent ſpittle, of a ſweet taſte, and fat, fætid, white, red, yellow, livid, aſh-coloured hue, which eaſeth, but conſumeth the patient. It may empty itſelf into the cavity of the cheſt, or into that ſpace of the dilated midriff, which divides the cheſt into two parts; whence ſeveral ſorts of conſumptions, or an epyema, both generally mortal; then the breathing is worſt of all, the blood and chyle are converted into pus, and almoſt all the ſolids do intirely conſume; red puſtules appear in the face, and about the neck and breaſt, an œdematous ſwelling of the hand of the affected ſide, a great weakneſs, hoarſeneſs, a falling off of the hair, an itching all over with watery puſtules, a leanneſs, with yellow, fætid, purulent, cadaverous matter preſſing hard, with almoſt a continual motion to go to ſtool, a great lowneſs of ſpirits, a ſuppreſſion of ſpittle, and death.

When therefore the expectoration of florid blood appears, the patient ought to be blooded in ſuch quantities as he is able to bear, in order to abate the too rapid motion of the blood, leſſen the inflammation, and prevent, as much as poſſible, the further effuſion of blood, amongſt the pulmonic veſiculæ, and cellules, where it would do infinite miſchief. If the hæmoptoë be very conſiderable, and continues, bleeding in the ſaphæna is of the greateſt ſervice; beſides this cooling emulſions, nitrous, demulcent, mucilaginous, and ſtiptic medicines long continued and mixed with gentle balſamics, vegetable acids, and even mineral, if the hæmoptoë be very conſiderable, are required. A decoction of red poppies, colt's-foot and figs, acidulated with elixir of vitriol, makes an admirable drink in this caſe; and ſoft linctuſes, with a very ſmall quantity of diacodium, or paregoric elixir, may be given to moderate the violence of the cough, in any period of the diſeaſe, eſpecially if you join mild diaphoretics with it, particularly antimony. The patient ought to be moſtly confined to a milk diet, eſpecially when the impoſthume is broke.

Though a morbid viſcoſity commonly prevails in pulmonic fevers, yet there are not a few, in which an acrid tenuity is predominant; ſometimes extremely thin and crude, and ſo very acrid as to excoriate the wind-pipe, &c. and occaſion an inceſſant and very violent cough. The ſharp thin humours in catarrhal fevers often bring on peripneumonic ſymptoms, by cauſing a conſtant irritation of the lungs; and no ſmall miſchief ariſes from the violent concuſſions, occaſioned by the frequent ſneezing, which commonly attend ſuch catarrhs. In this catarrhal peripneumony no great loſs of blood is neceſſary, ſome however

ſhould

ſhould be drawn, in the beginning, to prevent the preſent inflammatory diſpoſition, and future accidents. Bliſters are of wonderful ſervice to avert and draw off the acrid defluction; gentle purges are alſo uſeful to carry off the ſerous colluvies, though they are to be avoided where there is a laudable ſuppuration; demulcent pectorals ſhould be given to temperate the acidity of the humours, and ſhould be taken warm, with ſome mild diaphoretics, to promote a mild breathing ſweat; coffee is good in this caſe, and ſome gentle opiates, as diacodium, or elixir aſthmaticum, with which may be joined ſperma ceti, myrrh, muſk, antimony, ſquills, olibanum, and camphor, to abate the irritation, moderate the cough, and incraſſate the thin catarrhal humour. If the expectoration is livid, gleety, and ſanious, frequently reſembling the lees of red wine, ſometimes more black, and ſometimes very fætid, it either proceeds from a gangrenous ſtate of the lungs, or from a deſtruction of the craſis of the blood by very great acrimony, which is often the caſe in the highly ſcorbutic; the blood at this time is in a diſſolving putreſcent ſtate, the tongue black, the teeth furred, with a dark, thick ſordis, breath offenſive, urine black, rank or high-coloured, and the black ſpots, or bloody dyſentery, which frequently appears on the fifth, ſixth, or ſeventh day, all declare the great corruption of the humours.

In this putrid peripneumony bleeding cannot be admitted of, but the bark, muſk, and antimony, a decoction of figs, colt's-foot, red poppies, well acidulated with juices of orange or lemon, and then with gas ſulphuris, or elixir of vitriol, are very proper. Nitre, olibanum, myrrh, flowers of ſulphur, and bole, with conſerv. lujulæ, rob of elder, or currants, mucilage of quince-ſeeds, and ſyr. e ſucco fructus rubi Indæi, may be adminiſtered; camphorated vinegar with ſyr. of elder, or raſpberries, is an excellent medicine; cyder, wine, and water, acidulated and warm, may be drank; tincture of roſes, with red poppy flowers, moderate an inordinate defluction of the thin bloody ichor, frequently however Oxymel. ſcillit. & aq. cinnamom fort. are neceſſary to pump up the matter: the violence of the cough may be abated by elixir aſthmaticum, diacodium, &c. ſago, panado, jelly of hartſhorn, roaſted apples, cream of barley, thick gruel, with a little wine and juice of a lemon, oiſters, warm barley-broth, with honey, may be often given. A very thin, yellow ſpitting, as if tinged with ſaffron, is another bad ſymptom, and is many times ſucceeded by a hemoptoë from a rupture of the veſſels, and this particularly when the tongue appears red, dry, ſmooth, and ſhining, with a kind of livid bladder; ſometimes the morbid matter is returned into the pulmonick veins, and

re-mixed

re-mixed with the blood, and critically tranſlated to ſome other part, as the brain, liver, ſpleen, ears, or to the lower parts, producing phlegmons, impoſthumes, eryſipelatous, or œdematous ſwellings, ulcers, &c. particularly in perſons formerly ſubject to ſwoln or ſore legs, which are frequently obſerved to ſwell or break out again at the cloſe of a peripneumony, to the great relief of the breaſt; it is alſo well known that upon drying up ulcers on the legs ſuddenly, the lungs become affected, and by lacing up ſore legs too tightly, aſthmatic diſorders will come on; therefore we ought to bliſter the legs and feet. We know that thoſe abſceſſes are to be in the legs if there is a pain, redneſs, heat, and ſtretching in the muſcles, and if at the ſame time there is a very ſlight inflammation of the belly; we know that the matter is tranſlated to the liver, if there is a pain in the part, with a yellow urine, almoſt like that in the jaundice, and a yellow ſkin: from hence ariſeth a dreadful ſcene of evils. Theſe impoſthumes, if they eaſe the affected lungs, if they carry off the fever, if they remain full of matter, and make a good diſcharge, as it were through a fiſtula; and if they happen time enough before the ninth day; in ſuch caſes they are always advantageous; but if they do not appear before the ſpittle is purulent, without being yellow, or relieving the patient in the particulars before named, in theſe caſes they are to be deemed ominous; but after having appeared, if they again diſappear in the beginning of the illneſs, and the peripneumony returns; then they are altogether mortal ſigns.

If therefore it appears that the matter is like to make a tranſition, but no certainty where, then the patient muſt keep quiet, and his ſtrength and ſpirit muſt be kept up with diet, and ſmall quantities of wine, with emollient and pectoral medicines: but when we are ſure the matter has removed itſelf to a particular place, then apply bliſters, dry cupping glaſſes, or warm cataplaſms to the place, and exhibit ſuch medicines as are of an opening ſoapy nature, as ſoap in milk, rhubarb with amber, infuſion of ſena, with emetic tartar; alſo whey, goats milk, country air, &c. and, after the regular uſe of theſe medicines for ſome time, give the bark, with camphor, antimony, alſo acids, and gentle ſtomachic bitters ought to be given as ſoon as it is known that the matter has made a tranſition: Iſſues or ſetons ought to be cut either in, or very near the place where the matter has tranſlated itſelf.

As ſoon as a ſuppuration appears, I immediately give the bark, bitters and ſteel, acids, antimony, &c. with ſoft, agglutinating balſamics: theſe medicines I likewiſe preſcribe when the impoſthume is near its time of breaking; the uſe

of the cold bath is condemned in these cases, though I believe no bad effects would arise from the use of it, and probably much good.

When the inflamed part is glandular, and the internal and external heat great, the impacted matter sluggish and thick, the emunctories of the glands obstructed, and their folliculi and sides distended, then the disease terminates in a callous tumour, or in a schirrus of the lungs. From this the patient is all his life-time troubled with a cough, and breathes with difficulty, unless he sits upright: which disorders are still more troublesome after meals or motion. This state you must suppose present, when there is no signs of a bag of matter in the lungs; and here you will generally find the lungs to stick to the pleura. Lastly, when the bronchial or pulmonary artery is invanded with the most violent sort of inflammation arising either from an inward or outward cause, a gangrene suddenly ensueth; and from this, quickly after, an entire mortification, because of the quantity, and often repeated motion of the blood at each beating and contraction of the heart, by which so tender a body, and of so soft a substance as the lungs, is soon destroyed. That this will be the case, may be learned from the signs of the most violent kind of peripneumony, which has not yielded to any application, an extreme weakness coming on suddenly, and shewing itself by the pulse, a coldness of the limbs, and other extreme parts. And we know this same gangrene to be present already, if the foregoing signs have appeared; and if the patient spits ichorous, thin, ash-coloured, livid, black, and stinking matter, then death is at the door, and suddenly seizes.

Chap. IX.

Of the Peripneumonia Notha, *or* Spurious Peripneumony, Cough, *and* Phthisis Pulmonalis.

THE *Peripneumonia Notha*, or *Spurious Peripneumony*, *Cough*, and *Phthisis Pulmonalis*, are very troublesome complaints. Coughs and consumptions are properly annexed to the inflammatory diseases. For a recent cough, from cold, may be considered as the lowest degree of a peripneumony, and an old and neglected cough as the beginning of a consumption. Obstructions of the lungs are succeeded by tubercles, which making the cough worse, at last tear and ulcerate the organ. The lungs of all persons dying of the

phthisis

phthiſis pulmonalis, are full of tubercles and ulcers; though the load at the breaſt is very great, the breathing difficult, and the cough troubleſome, and ſometimes violent, which is always a ſign of the lungs being greatly affected, yet the fever and heat are ſmall, often ſcarce perceptible, the pulſe either quick, weak and ſmall, or ſluggiſh and oppreſſed: So that this diſtemper hath very different, and almoſt quite contrary ſymptoms to thoſe of a true peripneumony in ſeveral reſpects; and ariſes from very different cauſes, and requires a very different method of cure: and in fact we ſee that the ſpurious peripneumony ſeizes the old and phlegmatic, the weak, lax, fat and unweildy, and abounds moſt in wet, foggy weather, and moiſt winter ſeaſons. This diſeaſe ariſes from a pituitous lentor of the blood, and a ropy diſpoſition of the lymph and ſerum, which are generally redundent from obſtructed perſpiration, &c. and being put in motion by a febrile heat, or ſudden agitation of the humours, are thrown upon the lungs faſter than they can paſs off, for viſcid humours never paſs freely through the extremities of the arteries, whence being there more and more congeſted, they more and more obſtruct the pulmonic veſſels, till at laſt a fatal ſtagnation enſues, and death is the conſequence; a petuitous lentor of the blood and humours does not afford a ſufficient quantity of animal ſpirits to actuate the veſſels with force enough to carry on a due circulation. If there is a great load and uneaſineſs at the breaſt, a difficult hot breathing, cough, &c. with a ſtrong, full and quick pulſe, or a very tenſe and hard one in a ſtrong and vigorous perſon, bleeding is very neceſſary, and will frequently cure bad colds, (which we cannot be too careful in removing in the beginning) whilſt all other medicines may be ineffectual without it. Recent coughs, after bleeding, are ſoftened by a mucilage of linſeed, by ſperma ceti, ſweet oil, gum ammoniac, with aſafætida, ſalt of wormwood, &c. If the patient is diſturbed by the cough at night, give *pil. matthæi*, gr. 7 or 8, or *laudanum liquid.* gut. 20, with *oxymel ſcillitic.* ʒ2, or *gum ammoniac.* ʒiſs. When the obſtructions are of long ſtanding, oily medicines relax the ſtomach, pall the appetite, and increaſe the diſorder. Again, if the pulſe is weak and low, the heat ſmall, the urine pale and crude, great caution ought to be uſed in bleeding, for, after the operation, the patient ſoon ſinks, and grows conſiderably weaker; the power of nature, and the action of the ſolids on the fluids, is thereby weakened, and the morbific lentor thereby increaſed. But as bleeding is to be uſed with caution in this diſorder, ſo ought very heating and ſtimulating medicines, eſpecially at the beginning of the diſtemper, to be avoided; otherwiſe you will not only increaſe the oppreſſion at the

breaſt, but alſo bring on a comatoſe diſpoſition; for the morbid lentor being forced in too great quantities on the veſſels of the brain, accumulates there as well as in the lungs, occaſioning a giddineſs, pain and heavineſs of the head. We ſhould proceed therefore with great caution in treating this kind of diſeaſe, which is always dangerous, and frequently fatal; the more ſo as at the beginning the mildneſs of the ſymptoms is too apt to miſlead into too great a neglect or wrong management, and deſtroys people that ſcarce thought themſelves ill; for beginning with a ſmall wearineſs, weakneſs, a general proſtration, difficulty of breathing, oppreſſion of the cheſt, it cauſes ſuch ſmall motions, that there is ſcarce enough force or heat to warn you of the danger; afterwards a perpetual laborious wheezing, great anxiety, and conſtant oppreſſion on the præcordia, comatoſe ſymptoms, cold extremities, and wearineſs, come on by fits, uncertain ſhiverings, ſlight fevers, upon which difficulty of breathing, dark, lead-coloured nails and viſage come on, then you may believe that imminent danger is near. In general more or leſs blood may be drawn in the beginning, whereby the too great diſtenſion of the veſſels are removed, and room made for diluting medicines: ſometimes it is neceſſary to repeat bleeding, as in aſthmatic paroxyſms, &c. and mild, attenuating, ſaponacious medicines, diluting, detergent drinks, and the application of bliſters, ſhould ſucceed bleeding, an infuſion of inciding, deterging, pectoral herbs, as ground ivy, hyſſop, penny royal, liquorice, thin muſtard whey ſweetened with honey, and acidulated with the juice of a lemon, are proper for common drink. And as a ſpurious peripneumony is often attended with reachings to vomit, ſquills, ipecacuana, vinum emetic. kermes mineral, &c. are of great uſe. Bliſters ſhould never be neglected, as they attenuate and ſtimulate, and draw off part of the morbid colluvies; the head and breaſt are greatly relieved by bliſtering the neck, legs, and thighs, for ſometimes the limbs turn torpid, which is a bad ſymptom. When comatoſe ſymptoms remain after bleeding, you may draw off more blood, by cupping and ſcarifying the neck and ſhoulders, when you cannot venture to open a vein again. Both opiates and purging are equally hurtful; a gentle purge may be given in the beginning, if ſymptoms indicate it, but afterwards it is ſufficient to keep the body open. Nitre, ſperma ceti, cinnabar, ſaffron, pulv. contrayerv. camphor, ſpt. vol. oleoſ. lac. ammoniac. oxymel ſcillitic. myrrh, vinum emetic. the ſaline draught, made with ſpt. or ſalt of hartſhorn and juice of lemons, or diſtilled vinegar, decoction of figs, liquorice, barley-water, with ſweet milk, ſugar and nutmeg, butter-milk, decoction of bran,

bran, raiſins, and liquorice, are exceeding uſeful, as they greatly promote expectoration, relieve the breathing, and commonly operate by ſweat or urine. In old and ſtubborn coughs, and in the firſt ſtage of a conſumption, when the patient complains of pains in his ſide, conſtriction of the breaſt, or hot and reſtleſs nights, bleeding, iſſues, and ſetons made in the ſide, or upon the part affected, low and cool diet, ſpt. vitrioli, ſaline draught, &c. are of great uſe. Small bleedings are beneficial, even after hectic ſymptoms appear. Nothing diminiſhes the hectic fits ſo much as frequent and ſmall bleedings, with the ſaline draught, and a cooling diet. Colliquative ſweats are moſt ſafely checked by lime-water, with a little new milk. In the advanced ſtate of a conſumption we may obſerve two ſorts of coughs, the one cauſed by the ulcers, and the other by a thin rheum falling upon the fauces and trachea; which parts being then deprived of their mucus, become very ſenſible of irritation, and is very painful and teazing to the patient; for the firſt the balſam of *Peru*, copaiba, made up with conſerve of roſes, or diſſolved in the yolk of an egg, repeated bleeding, a milk or vegetable diet, acids, and cool air, &c. are very good. The other kind of cough can only be palliated by incraſſants, as conſerve of roſes, and opium, with oxymel of ſquills; if the patient is low, the bark may be given with ſafety in any ſtate of a conſumption, eſpecially when ſuppuration begins, aſſes milk, country air, and gentle exerciſe, are of vaſt ſervice.

CHAP. X.

Of a PLEURISY, *and* PARAPHRENITIS.

A *Pleuriſy* is an acute pain on either ſide of the breaſt, attended with a high fever, ariſing from an inflammation of the pleura, intercoſtal muſcles, or perioſteum of the ribs,; the violence of the pain hinders a due expanſion of the thorax; the reſpiration is immediately affected; hence the lungs are not ſufficiently inflated, and the blood cannot freely circulate; then the pulmonic artery, and its branches, become more and more diſtended, till at length they are rendered ſo very turgid as to preſs on and obſtruct the branches of the bronchial arteries; and thus an inflammation of the lungs, and a compleat peripneumony is often the conſequence of a true or ſpurious pleuriſy, eſpecially when the blood is very viſcid. Indeed whatever interrupts a free inſpiration, and expiration, is apt to produce this. All kinds of pains in the breaſt,

breaſt, and eſpecially pleuriſies, are in a peculiar manner dangerous. As the external membrane of the lungs is only a continuation of the pleura, the inflammation may be diffuſed from one part of the pleura to another, and even to that which immediately inveſts the lungs, for it may ſpread a conſiderable ſpace; and as the mediaſtinum is but a duplicature of the pleura, an inflammation may attack any part of it, or be propagated to it; in which caſe very acute pains are felt under the ſternum, or between the ſhoulder-blades. When the pain ſeems to be very deep in the cheſt, with a great load and anxiety, palpitation of the heart, and a conſtant inclination, as it were, to raiſe a cough, the pericardium, the external membrane of which being alſo from the pleura, is commonly inflamed. When the pain is ſpread all over the breaſt, with a great oppreſſion, and darting pricking pains here and there, not only the mediaſtinum, but the external membrane of both lobes of the lungs ſeem to be inflamed; a great difficulty of breathing, load and anxiety, perpetual cough, and conſtant deſire of ſitting up in an erect poſture, ſhews this to be the caſe, and a very dangerous one it is, as well as an inflammation of the pericardium. The upper membrane of the diaphragm is likewiſe from the pleura, and may be primarily inflamed, or ſecondarily from the inflammation of the pleura; from whence ariſes a moſt ſtupendous diſeaſe, called *Paraphrenitis.* This is more common than is generally believed, though it is ſeldom diſcovered when preſent, and often neglected, or treated by ſome other name: it is attended with a very acute fever, a violent inflammatory pain of the part, which extends from the lower ribs to the loweſt vertebræ of the back, a ſhort, convulſive, ſingultoſe kind of breathing, with convulſions in other parts, vaſt anxiety, and uneaſineſs, dry cough, ſneezing, dulneſs at the ſtomach, nauſeating, vomiting, hiccough, and delirium, an exceſſive pain upon inſpiration, darting from the pit of the ſtomach to the very loins; the hypochondrium of the ſide affected is drawn inwards and upwards under the ribs, and the abdomen is ſcarce perceptibly moved in reſpiration, but remains fixed and convulſed, as it were, by the violence of the pain in attempting an inſpiration, the patient preſſes his belly upon going to ſtool, becauſe of the great and conſtant motion of the part, of its neceſſity to life, and of the nervouſneſs of its extended membranes, all things are quicker, and more fatal than in any other part; a large collection of purulent matter is formed in the abdomen, not unlike an aſcites; when the diaphragm is impoſthumated after its preceeding inflammation, if the impoſtume breaks on the ſide of the belly, and empties its matter therein, then there happens a gathering

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of matter in that part of the abdomen, and a tumifying of the part, a putrefaction, a corroſion of the bowels, a very bad ſort of conſumption, and death.

In the cure of a pleuriſy, an emollient, cooling glyſter ſhould immediately ſucceed bleeding, eſpecially if the body is coſtive, which not only empties the inteſtines of groſs excrements and flatus, but alſo derives a greater quantity of blood through the deſcending aorta and iliacs; then let the part be fomented.

A ſimple pleuriſy, or one attended with a ſlight inflammation of the lungs, may be cured with leſs bleeding. If a large bliſter is laid to the ſide affected, which by acting directly upon the part, reſolves the obſtruction, and thereby removes the fever.

Though the ſymptoms ſhould vaniſh upon bliſtering, it would be more ſecure to bleed again, unleſs a profuſe ſweat comes on with eaſe from pain; but if the lungs are at the ſame time much inflamed, the cure cannot be ſo ſpeedy: for though the firſt bleeding and bliſters ſhould give eaſe, yet repetitions of both will be needful. Sometimes the ſtitch returns, and fixes in the other ſide; but this being treated as the firſt, will alſo give way.

The patient ought to uſe a cooling, emollient, diluting regimen, and drink moſt plentifully of nitrous, cooling decoctions, infuſions and emulſions, thin whey, a decoction of barley, bran tea with red poppies and ſugar candy: to theſe may be added ſperma ceti, and acid, nitrous medicines, camphor, emetic tartar, diaphoretic antimony, &c. warm diſcutients, anodyne fomentations, and purges, are alſo uſeful. The violence of the pain, ariſing from the great irritation and inflammation of the parts, unqueſtionably demands the uſe of mild opiates after bleeding, as diacodium, elixir paregoricum; if the inflammation is not great, then an anodyne plaſter of opium, camphor, and cummin plaſter, may be applied to the part affected; but if the inflammation is great, and the fever high, bliſters are unavoidably neceſſary.

In epidemic pleuriſies we ought to rely greatly upon ſweating, eſpecially after the third or fourth day; and indeed from the firſt attack we ought to endeavour to procure a ſweat by the uſe of a warm bath, and warm flannels, giving internally camphor, nitre, and elixir paregoricum, with plenty of *Valerian* tea, the juice of a lemon and ſugar. But when the ſputum begins, theſe medicines ſhould be more ſparingly uſed, and ſquills, pectorals, myrrh, the bark, &c. called in. If the heat and drought are great, the patient ſhould drink very

very liberally of ſome pleaſant acidulated liquor. If the patient is low, then the aromatic gums, or volatile ſalts, with balſamics, or tar-water, may be uſed. But above all things, when the ſputum begins we are to deſiſt from bleeding; if the matter is tough, and comes up with difficulty, gentle and repeated vomits of ſquills will do good.

When there is a load at the breaſt, cough, expectoration, and other ſymptoms of a peripneumony, with the pleuriſy, theſe ſymptoms are to be managed as before directed.

If the part is ſore to the touch, if the pain is great on lying upon the ſide affected, and if the intercoſtal muſcles only are inflamed; in that caſe topical applications, as poultices, cataplaſms, bliſters, cupping, flannels dipt in camphorated ſpirit of wine and vinegar applied hot to the place, &c. will go a great way towards a cure.

True pleuretic diſorders almoſt always begin with a rigor, a tenſe, hard pulſe, very ſharp, pricking, and fixed pain, not uncertain, ſhifting and wandering as the flatulent and rheumatic. It goes on with a heat, gradually increaſing to a burning, a drought, an entire loſs of appetite, a pain, from being light, increaſeth, till it becomes very violent, breathing very difficult; when in its force, there is a violent fever, but leſs apparent, becauſe the patient holds in his breath as much as poſſible, and is almoſt ſuffocated upon account of his endeavouring to ſuppreſs the moſt violent pain, which he feels upon breathing out: this often deceives the Phyſician, to the patient's great hurt. Theſe are the chief diagnoſtics, and greatly determine as to bleeding, &c. This diſeaſe doth terminate variouſly, according to the ſeveral cauſes and degrees of inflammation. It terminates in health, other diſeaſes, or in death. It terminates in health, by the help of kind nature, in reſolving or concocting the morbific matter, or by proper applications in the beginning, while the diſeaſe was in a ſimple ſtate. When a reſolution is like to happen, or does actually happen, then nothing is neceſſary to be done, but to confine the patient to a thin, ſpare diet, and the gentleſt openers, which, together with ſoft fomentations, will eaſe the pain, and help to remove the cauſe. When a concoction or excretion happens, which is known when the patient voids a great quantity of thick hypoſtatic water, accompanied with a ſtrangury, when the ſame has been pretty high coloured, with a white ſediment before the fourth day, and the ſymptoms at the ſame time abating, which ſort of urine alſo cures a dry pleuriſy. If the patient voids

voids by ſtool a great quantity of yellow, bilious matter, before the fourth day, and is eaſed thereby; if ichorous, purulent and fiſtulous impoſthumes, running long, and beginning before the ſixth day, have ſhewn themſelves behind the ears, or in the legs; if the pain of the ſide is removed to the ſhoulder, hand or back, with a numbneſs and heavineſs of thoſe parts; if the patient ſpits plentifully from that part, and is eaſed thereby without a rheum at the noſe, in great quantity, at firſt, like matter, but ſoon changing into white before the fourth day, then you may expect a cure on the eleventh day. When theſe ſigns appear, then ought the Phyſician to endeavour at no change, but only to continue and encourage all ſpontaneous evacuations or tranſlations of the morbific matter; bleeding, and other evacuations, are to be avoided, except thoſe that appear beneficial; if the morbific matter diſcharges itſelf by the piles, then they ought to be fomented, and leeches applied to the hæmorrhoidal veins, till they have ſucked a good quantity of the groſs blood; wherever the matter has moved to, that part ought to be fomented and deterged with gentle drawing plaſters, and looſening clyſters, with a little turpentine, ought to be injected, giving at the ſame time opening diuretics, and a ſoft thin diet, with a cool air. Laſtly, the *vis vitæ* ought to be kept up, and gentle cordial alteratives, as the different preparations of antimony, hellebore, &c. with the bark, ought to be given. If an inflammation of the pleura is not timely abated by bleeding, bliſters, &c. or reſolved by proper diluting, antiphlogiſtic, emollient drinks and medicines, it muſt end in an impoſthumation or gangrene. When the pleuriſy tends to a ſuppuration, we know by the obſtinacy of the pain, cough and fever, laſting beyond the fourth day, and the abſence of the ſigns of reſolution, and an entire cure. That an impoſthume is already formed, is known from a ſhivering often returning without any cauſe, and from the ſigns laid down concerning the peripneumony. This impoſthume may break by the weight of its own matter, and is ſometimes evacuated through the lungs by ſpitting. When the pus falls into the cavity of the cheſt, the ulcer, by the production of more new matter, ſtill heaped on the firſt, fills up the whole cavity, and conſumes all the fleſh and ſubſtance of the whole body, whence a conſumption. This is known to be the caſe from a ſudden relenting, and quick return of the ſymptoms. If therefore we know that the inflamed part is impoſthumating, the place where the pain was is to be carefully noted, and opened with a cauſtic, and the inciſion made as deep as the pleura, and kept open with ſuppurating medicines, that the matter being turned toward the outſide, by the power of

the lungs, may leave the pleura whole, and ſo an empyema be prevented; then ought the place to be fomented and moiſtened till it is entirely cleanſed. But if the impoſthume is broke inwardly, and the pus has already filled the cavity of the cheſt, then an empyema is formed.

Chap. XI.

Of an Empyema.

An *Empyema* is a collection of matter in the cavity of the cheſt, and may itſelf be an original diſeaſe, or may be produced by the breaking of an impoſthume of the lungs or pleura. For a neglected peripneumony or pleuriſy often terminates in an impoſthume. When this impoſthume breaks, the pus very commonly falls down into the cavity of the cheſt, and forms an empyema, which is known from new pain, difficulty of breathing and ſpitting, a dry cough, a heavineſs upon the diaphragm, the poſſibility of lying on one ſide only, a noiſe and rattling of the pus, a ſlow fever, red cheeks, hollow eyes, a heat at the fingers ends, crookedneſs of the nails, and a ſwelling of the belly. The effects of this are a continual accumulation of pus out of the broken ulcer, an exacerbation, putrefaction, ſtench, and thining of the ſame from its being detained in a cloſe, hot, moiſt place, and there moved, an impediment in lifting up the diaphragm, and in extending of the lungs, whence a blowing, difficulty and ſtrait breathing, a continual dry cough, and anxiety or anguiſh, a corroſion and conſumption of the pleura, lungs, diaphragm, pericardium, and of the heart itſelf; whence a ſmall hectic fever, with a quick ſmall pulſe, redneſs of the cheeks, continual drought, loſs of appetite, great weakneſs, and ſwooning. Hence an unfitneſs of the fluids for nutrition, circulation, ſecretion, and excretion; whence a conſumption, atrophy, reſolution of the fibres, putrefaction of the fluids, and their obſtruction in the corroded lungs, or a mortal ſanious flux, with night ſweats, pimples in the face, with a ſhining yellowneſs, and a hypocratic dying countenance and viſage. The cure here is very difficult; it is however to be attempted by diſcharging the pus from the place it fell upon, by the mouth, if nature points out that way, by urine, or by opening of the cheſt between the fourth and fifth, or ſixth and ſeventh ribs, reckoning from below, and by tapping the pus ſlowly, giving inwardly, in great quantities, vulnerary, cleanſing decoctions, and ſuch as reſiſt putrefaction. If the pus is white, ſmooth, equal, void of ſtench, not colouring the probe; if the patient

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is free from fever, drought, and looſeneſs, has an appetite, and digeſts kindly, and is healthful in all other reſpects, there are hopes of his recovery. But if the pus is tawny, ichorous, ropy, and fætid, colouring the probe, the patient is in great danger. If the mediaſtinum has been eaten thro', and the thorax opened, the patient is generally inſtantly ſuffocated from the preſſure of the air upon the lungs. If the empyema is of an old ſtanding, the ſtrength decayed, the hair falling off, and colliquative and melting looſeneſs come on; then, if the operation is performed, it only ſerves to haſten death. Again, a pleuriſy may alſo change into another diſeaſe; when the affected part is grown ſchirrous or callous, or when the lungs adhere to the pleura; which, where it happens, there ariſeth an aſthma, difficulty of breathing, a dry cough, chiefly after meals and motion; when this is known to be, it is either altogether incurable, or can only be removed by bliſters applied to the place with fomentations, hard riding, ringing of bells, ſwimming, &c. This ſort of inflammation alſo changes into a gangrene; firſt of the ſide, but ſoon after of the lungs themſelves, becauſe of their neighbourhood; which evil either proceeds from the violence of the pleuriſy, or from the ſharp or purulent concomitant matter. That this will be, or is even begun, may be foreſeen from many ſigns, if the purulent ſpittle be ſomewhat tainted with choler, ſome ſtreaks of blood, black, ſooty, and ſtinking like lye of oil; if there is a great rattling in the cheſt, with a ſad countenance, the eyes red and yellow, with ſeeming duſt in them; if the ſpittle is in the beginning of diverſe colours; then the patient often dies on the third or fourth day; if the patient ſnoars much in his ſleep, ſpits nothing, or with difficulty, the pulſe languid, the urine extremely high-coloured; if there is a ſymptomatic looſeneſs, with watery, ſtinking, rotten ſtools, neither critical nor eaſing; if a violent inflammation of the lungs comes at the back of it, as a relapſe of the pleuriſy; if the blood from the vein is very florid, with an inflammatory cruſt, if ſpitting is ſuppreſſed, leaving the difficulty of breathing behind, which increaſes with a pain and heavineſs in the cheſt, a hard, ſmall, and quick pulſe, with great heat; all which growing worſe on the fifth day, doth kill on the ſeventh; if the urine is very red, and dark, with a ſettling of mixed and various colours, and not entirely ſeparating at the bottom, or the ſides, the patient commonly dies within fourteen days; if the ſediment is black or broken into ſmall particles, like bran, the patient dies ſooner. If the pleuriſy is gentle in the beginning, but grows worſe on the fifth or ſixth day, the danger is great on the ſeventh or eighth, and the ſick perſon ſeldom does well unleſs he gets the better of the ſtruggles of the fourteenth day. If the back-

ſide and ſhoulders are heated with a redneſs, and a great anguiſh, green ſtools, and very ſtinking; if the pleuriſy be a dry one, becauſe of the want of ſtrength, becauſe of the greatneſs of the pain, of the unfitneſs of the matter for an expulſion; becauſe of the too great contraction and ſhrivelling of the veſſels; becauſe of the too great uſe of hot means; and if the pain at the ſame time time riſes higher; if the tongue is from the beginning dry, foul, livid, and black, with a black bliſter or puſtule upon it; if any of theſe ſigns be preſent ſingly, or more of them together, the diſeaſe, of itſelf, is moſt times mortal; if cured it is with the utmoſt difficulty, and moſt times kills by a gangrene of the ſide, or of the lungs. When thoſe ſigns are preſent, the Phyſician ought immediately to try the moſt powerful means; cauſtics may be laid upon the part affected, and the places afterwards covered with ſtrong cleanſers, and moſt penetrating fomentations, the patient drinking at the ſame time ſtrong diluters, openers, and ſuch things as are contrary to putrefaction. If the inflammation is moſt violent, and yields neither to nature nor remedies, but if afterwards ſuddenly removed without any cauſe, the pulſe continuing ſmall, quick, and intermitting, the breath alſo quick, and ſmall, with cold ſweats, it is then apparent and certain that a gangrene has already laid hold of the inflamed parts; then you will ſoon ſee the patient delirious, and death ſoon after follows, eſpecially if at the ſame time the outſide of the cheſt is of a livid colour, from the ſtagnation of the blood in the capillary veſſels; which is alſo the event, when the patient that ſpits a bilious or yellowiſh ſpittle, is eaſed of his pain without any reaſon; then alſo ſoon appears a mortal delirium, the meſſenger of death, occaſioned by a gangrene. A pleuriſy terminates alſo in death, when its cauſes are ſo powerful, that the pain ſuppreſſing entirely the motion of the cheſt, ſoon creates a mortal peripneumony, deſtroying very ſuddenly, by hindering all paſſage of the blood through the lungs.

CHAP. XII.

Of an INFLAMMATION *of the* LIVER, *and* JAUNDICE, *&c.*

THE liver is a part not only liable to original inflammations, but alſo to ſuffer by tranſlations of matter. The liver, next to the lungs, is moſt ſubject to ſuppuration. An atrabilious temper of the blood, the acrimony of ſtagnating, purulent, ichorous, or ſcorbutic matter, an obſtruction of the bile, with heat, fever, and motion, with many other cauſes, may produce an inflammation of the liver; whilſt it follows the common courſe of inflammations, it obſtructs the ſmall veſſels, ſtops the fluids, raiſes a tumour, preſſes upon the adjacent parts, and there occaſions the ſame diſorders as in its own body; then it gradually inlarges, occupies almoſt the whole liver, offends the ſtomach, and ſuffers pain from its fulneſs, and ſo does the midriff; it hinders the influx of the blood from the cæliac and meſenteric arteries, and ſtops it juſt at going into the liver, and conſequently interrupts the fluids from flowing into the firſt bowels of the abdomen; it deſtroys and inverts the generation, ſecretion, excretion, circulation and office of the bile, produces jaundice and its effects, a putrefaction of all the liquids and bowels of the abdomen; whence innumerable evils. The cure is attempted by bliſters applied to the part, cooling, diluting, and deterging medicines: the putrid bile ought to be evacuated as faſt as poſſible, which may be done with gentle doſes of rhubarb, infuſion of ſena, with tartar emetic gr. $\frac{1}{2}$, ſacred tincture, with ſal prunel. *Glauber*'s purging ſalt, with elixir proprietatis, a gentle antimonial, or ipecacuanha emetic, is of great ſervice: we are not to neglect clyſters and fomentations, a cool thin diet, and diluting medicines. If the inflammation of the liver be recent and violent, then it ought to be treated with the ſame caution, method, and remedies, as a pleuriſy, &c. You may judge of the patient's recovery by yellowneſs being gone out of the eyes, face, urine, and ſtools. If the inflammation has been neglected, or the medicines have proved ineffectual, and if the cauſe be great and vehement, then an impoſthume forms; here good pus, except in the ſmall and outſide parts, can ſeldom be expected, the inſide being very full of blood, and bilious, ſtagnating matter; ſo that generally a total putrefaction of the liver follows. This is foreſeen from the ſigns of a precedent inflammation of the part, an inflammatory pain, a yellow jaundice, ſhewing itſelf in the eyes, ſkin, urine, and ſtools, an acute fever, from the abſence of reſolution, excretion of the concocted matter, or of a cure: from the change of ſymptoms, the abating

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of the acute pain, a throbbing ſucceeding thereon, the jaundice remaining, wandering and uncertain ſhiverings, from the inflammation laſting more than three days. We know that an impoſthume is already formed from the preceding ſigns, an apparent tumour of the place, the change of ſymptoms, ſo that inſtead of pain, the part feels heavy, the jaundice remaining, a great weakneſs, drought, and ſmall hectic fever. This impoſthume doth either eat through the whole liver, or breaks into the cavity of the abdomen, and lets out its foul and ſanious matter, either through the bilious ducts into the guts, or through the *vena cava* into the blood, or by raiſing a tumor, grows to the peritonœum, &c. forms there an outward impoſthume of the liver to be diſcerned there. When the liver is conſuming, after a long ſtruggle with a ſlow icteritious waſting, with a continual ſmall fever, an intollerable thirſt, prodigious weakneſs, inexpreſſible anguiſh, the urine almoſt black, a tympany, a looſeneſs, with ſanious and very fætid ſtools, this ſort of jaundice doth not admit of a cure, and hardly of any palliation. If there be ulcers in the liver, which diſcharge their matter into the cavity of the abdomen, they continually increaſe there the quantity of pus, convert all the fluids and nouriſhment of the body into new pus, putrify the inteſtines, and thence create an aſcites in the deceitful ſhape of a tympany. This ſort of jaundice is, like the foregoing, incurable, and, after a ſlow and cruel waſting, death comes. But as often as the ſuppurated matter and ichor, after having eaten through the ends of the bilious ducts, doth flow into their greater receptacles, and then into the inteſtines, according to the different way they take, they produce either fætid vomitings of putrid, purulent, ichorous, white, aſh-coloured, tawny, yellow, and black matter, or ſtools of the like nature, with great loſs of ſtrength, which go by the name of colliquative looſe ſtools. This is another ſort of jaundice much to be feared, and does commonly kill in a ſhort time. If theſe matters and liquids do iſſue from the conſumed extremities of the *vena cava* into the ſame, and thence into the whole maſs of blood, and mix therewith, there ariſe the moſt dreadful and ſoon deſtructive ſymptoms, frequent and frightful ſwoonings, extreme weakneſs, the pulſe is diſordered all manner of ways, a diſturbance and confuſion of all the functions at once, and a ſudden and unexpected death; this is another and different ſort of jaundice; in this caſe no ſort of method or medicines will avail any thing; but a large ſupply of ſuch as do ſupport the ſtrength, reſiſt putrefaction, and reſtore the loſt liquids; all theſe help a little. If the impoſthume points outwardly, it is to be opened with a cauſtic, or lancet; if the pus which comes

comes out be white, even, ſmooth, and void of ſmell, and not colouring the probe, there are hopes of a cure, and it ought to be treated as an ulcer, with cleanſing and alterative medicines internally given: but if the pus is yellow, tawny, livid, black, fætid, and colouring the probe, the liver will be eaten through by degrees, and the patient conſumed: If a ſchirrus is formed in the liver, its tumor, hardneſs and continual increaſe, doth incommode and hurt not only its own ſeat, but alſo the adjacent parts; it doth not give way to ſoftening medicines, and ſharp ones ſoon convert it into a cancer: it ought to be treated with very mild medicines, as ſmall doſes of rhubarb, gum ammoniac, ſoap, infuſion of ſena, with tartar emetic, hellebore, ſmall doſes of pulv. arid. but it is ſeldom perfectly cured, and the patient has a perpetual jaundice. Laſtly, an inflammation of the liver doth likewiſe terminate in death; if the cauſes of the inflammation are ſo great that nothing can paſs through the liver, and a very high fever doth rage at the ſame time, then is the whole liver ſtiff, and cannot perform any of its functions, there breaks out a great and ſudden jaundice, the veſſels tear, the blood and choler are ſhade, and the patient thereupon inſtantly dies. This event is foretold from the known violence of the diſeaſe in the liver, and from a ſudden and utter loſs of ſtrength. But its preſence is known from blood, choler, excrements like lyes of oil, green, black, very ſtinking, and even like unto the ſmell of dead bodies, being vomited and voided by ſtool; beſides a violent and continual hiccough, a great fever, unquenchable thirſt, and very ſudden paleneſs. We may eaſily conceive how numberleſs the ſymptoms and diſeaſes are that ariſe from a diſeaſed liver, when we conſider that from the liver do depend all the bowels of the abdomen, and conſequently all their actions of digeſtion, aſſimulation, nutrition, ſupplying the blood with new fuel, and the alvine excretions.

CHAP.

Chap. XIII.

Of an Inflammation *of the* Stomach, Spleen, Pancreas, *&c.*

As other parts, ſo may the ſtomach be ſeized with an inflammation; the ſymptoms are a burning, fixed and pungent pain in the ſtomach, which is increaſed by ſwallowing any thing which is vomited up with violent ſtrainings, and a very painful hiccough, with a perpetual anguiſh about the vitals, and an acute, continual fever. It may ariſe from the general cauſes of inflammations, or it may be communicated to it by ſome adjacent part that is inflamed, or be produced by ſome ſharp, corroſive matter. It becomes many times mortal in a ſhort time; unleſs it is ſuddenly cured, it terminates like all other inflammations, in health, ſuppuration, cancer, gangrene; or in ſudden death, uſhered in by convulſions; as ſoon as it is known, the cure ought immediately to be attempted by large and repeated bleedings, by a bliſter put upon the place, by ſoft, emollient diet and medicines, contrary to inflammations; alſo clyſters, fomentations, &c. If it terminates in an impoſthume, there follow many evils, chiefly a nauſeating, vomiting, and pain; it is to be treated as other impoſthumes are; if it ends in a ſchirrous, or cancer, then follow the moſt enormous vomitings, intolerable pains, increaſed upon ſwallowing. It is aſſwaged only with ſoft medicines, but ſeldom cured. The ſpleen, pancreas, and caul, are ſubject to the ſame diſeaſes which happen to the other viſcera, already mentioned, and are to be treated in the ſame manner.

Chap. XIV.

Of an Inflammation *of the* Intestines.

The inteſtines, chiefly the thin guts, are very often ſeized with an inflammation in their membranes, from the cauſes common to all inflammations carried thither, or from ſharp meat or drink, poiſons, ſharp, putrid, fœtid, purulent, ichorous, gangrenous, bilious, or atrabilious matter detained in them; or from ſtrong convulſions, occaſioned by a flatus ſtopping their motion. An inflammation in thoſe parts contracts the inteſtines, ſhuts up the cavity,

cavity, and hinders the paſſage of the fæces, occaſions a very ſharp, burning, and fixed pain, violent convulſions, when irritated by the matter, and by the myaſma of the corrupted fæces that are near, and upon the affected part; by ſtopping up the paſſage by ſtool it excites a vomiting of what is taken, or approaches the part, and that ſooner or later after taking, according as the ſeat of the inflammation is higher or lower; it occaſions painful flatuſes, and moſt ſharp, griping pains, with great murmurings and twiſtings in the guts, the iliac paſſion, an impoſthume, gangrene, ſchirrous, cancer, a very acute fever, a very great weakneſs from the fierceneſs of the pain, and a very ſudden death. An inflammation may be diſtinguiſhed from a flatus, by its companion, a very acute continual fever, a great drought and heat, hard pulſe, a burning fiery pain, a very high-coloured urine, and a ſudden weakneſs: If the colon is inflamed, it is called the colic; if the lower end of the *inteſtinum rectum* is the ſeat of the complaint, then it paſſes for a fit of the blind, or inward piles; it goes off with a kind of dyſentery, the excrements being ſomewhat bloody, and bilious. The cure is attempted by repeated bleedings, as in a pleuriſy, by continually injecting looſening, diluting, antiphlogiſtic clyſters, by drinking inceſſantly things of this kind warm, with a ſmall quantity of opium; fomentations ought to be applied all over the belly; vinegar, oil of the *palma chriſti*, camphorated ſpirit of wine, bathing in hot water, and even bliſters applied to the part affected; the belly is to be opened by oily draughts, emulſions, infuſion of ſena with tartar, ſal. prunellæ, ſal. cartharticum amarum ℥2, diſſolved in water ℔ 1, and two ſpoonfuls taken every half hour till it begins to purge. I have given a gentle emetic when the reaching was very bad, with good ſucceſs, though I am as yet very timid in giving it. If the inflammation is not timely removed, in room of the pain, burning and tearing, there ſucceeds an uncertain and wavering ſhivering all over the body, without a manifeſt cauſe, the acute pain turns to an obtuſe one, together with a heavineſs of the part; then you may believe an impoſthume is there forming, out of which there will flow pus within fourteen days upon its breaking. If it falls into the cavity of the abdomen, it creates many ills, as an aſcites under the appearance of a tympany, and a ſlow and moſt cruel waſting, endangering death: if it flows through the hollow of the inteſtines then it cauſes a purulent dyſentery, which is leſs or more, greater or ſmaller, according to the nature of the impoſthume; ſometimes the whole glandular membranes are voided, and conſumptions hence ariſe. But if the diſeaſe has been violent, it often turns to a gangrene

of the part, which ſoon kills the patient; when this happens there is a ſudden and cauſeleſs remiſſion of the pain, while the pulſe remains weak, and intermitting; cold ſweats appear, the ſtools are fætid, aſh-coloured, ichorous, livid and black, with ſkins, which come away without the patient's knowledge; when theſe ſymptoms appear, look for death, it is at the door. If the inflammation ends in a ſchirrus, which is known by the long continuance of the inflammation, which does not riſe to any great height, but leaves in the part a laſting numbneſs, heavineſs and ſpitting; this occaſions many great and obſtinate evils; as the numbneſs, weight, and bulk, continually increaſes, ſo the cavity of the inteſtine is proportionably diminiſhed, conſequently the chyle and fæces ſtagnate there, and become putrid; and at length an entire obſtruction of the part enſues: and from the irritation of the putrid myaſma, the iliac paſſion, miſerere, convulſions, hiccough, vomitings, continual pains, a fever, leanneſs, waſting, and death follow. This is a dangerous diſeaſe, and hardly admits of a cure. If ſharp, forcing medicines are uſed, a cancer will be the unavoidable conſequence. All that can be done is to confine the patient to a milk diet, with ſoftening broths, and gentle clyſters, with the cicuta plaſter; the medicines ought to be of the ſoftening, anodyne kind.

Having now mentioned the different kinds of inflammations, and deſcribed the various forms they aſſume in different parts of the body, I ſhall now conclude this head with a few remarks upon inflammations in general, and inquire a little into their cauſes, as they are the means of producing many diſeaſes.

A Phlegmon, or inflammation (as I have already obſerved) receives different names, from the parts it affects; if it attacks the eye, it gets the name of an *Opthalmia*; if the brain, a *Phrenſy*; if the throat, a *Quincy*; if the lungs, a *Peripneumony*; if the pleura, a *Pleuriſy*, &c.

A phlegmon is either eryſipelatous, œdematous, or ſchirrous; it has for its proximate cauſe the blood, its increaſed velocity, and irritating quality. Pain is the firſt effect of an inflammation, which gives an additional irritation, and thereby increaſes the diſeaſe, the degree of which is known from the heat, pulſation, pain, redneſs of colour, and tenſion. Heat in our bodies is produced by the attrition and colliſion of the ſolids and fluids, which accelerates the circulation; for the velocity of the fluids being preternaturally increaſed, the

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contraction of the heart muſt at the ſame time be more frequent and ſtrong, and conſequently the action and re-action of the ſolids and fluids increaſed; and when heat is produced in a ſtate of health, the circulation is uniform, calm and regular, but when it is augmented above this ſtandard, there is a preternatural heat, and an inflammation, or diſpoſition towards it; ſo that knowing the ſtandard of nature, we can judge of the degree of the diſeaſe from the exceſs above or below that ſtandard.

The increaſed velocity of the blood ariſes from external and internal cauſes; the external cauſes are wounds, laxations, ſprains, fractures, compreſſion, &c. the internal ariſe from an acrimony generated in the blood from ſtagnation, putrefaction, aromatic aliment, ſpirituous liquors, &c. The velocity of the blood is aſcertained from the pulſation of the arteries; the irritation, irritability and ſenſibility of the fibres reſult from thence, and are the antecedent cauſe of inflammations: an inflammation therefore proceeds from a ſtimulus, as we ſee in the prick of a needle, ſting of a bee, the application of a bliſter, the heat of fire, the application of acrid, irritating, and poiſonous ſubſtances, &c. but nothing can operate as a ſtimulus upon the body unleſs the ſolids are ſenſible and ſuſceptible of irritation, therefore an inflammation, or the effects of irritation, ariſes from a ſtimulus applied to a ſenſible part, and is more or leſs, according to the force of the ſtimulus, and the ſenſibility of the affected part. So that an erethiſm is the reſult of the action and operation of a ſtimulating ſubſtance upon a ſenſible and irritable veſſel or body; and accordingly as you increaſe the ſtimulus and the ſenſibility of the part to which it is applied, the more you increaſe the inflammation, and *vice verſa*; and when ever an erethiſm is excited in any part, an increaſed velocity of the blood muſt neceſſarily follow, for the blood circulates, as I have already proved, by means of a ſtimulus, and the convulſive ſpaſms of the ſolids; and as the circulation produces heat, ſo an increaſed velocity of the blood muſt neceſſarily produce an increaſed heat. Hence it is evident, that by taking away the ſtimulus, and irritability of the part, you remove the inflammation, and by removing the inflammation, you thereby take away the effects of it, viz. the increaſed velocity of the blood, and heat of the body.

As an erethiſm produces heat, and an acceleration of circulation, ſo it occaſions pain, for as ſoon as pain is excited in any part of the body, the ſoul directs a great flow of the nervous æther to the part affected, and the heart

contracts faſter and ſtronger, and throws a great quantity of blood on the affected part, in order to remove the cauſe of pain; and the quantity of fluid is in proportion to the irritation or pain, by which the veſſels are dilated and contracted with a greater force, and the heat ariſing from the action and reaction of the ſolids and fluids is diffuſed over all the body, but is greateſt in the part affected, and about the heart.

The force by which the erethiſm impells the fluids againſt the ſides of the veſſels, is in proportion to the variety of ſtimulus, and to the addition it receives from the preternatural velocity, elaſticity, and quantity of blood, and produces various degrees of contraction in the veſſels, and heat in the body; ſo that one degree of contraction produces a ſmall inflammation, another a greater, a third ſuppreſſes the excretions, another increaſes them, while at another time it may be ſo violent as to bring on convulſions.

The redneſs ariſes from a greater quantity of red blood than uſual flowing to the affected part; for as the fluids of the body circulate ſwifter or ſlower, in proportion to their gravity, ſo the red globules having the greateſt gravity, flow in a greater quantity than any other humour to the offended part. We ſee in violent exerciſe, running, walking, leaping, a blow upon the face, &c. the blood is determined to the part affected in a greater column than any other humour; in bluſhing we ſee the ſame; alſo in ardent fevers, and in all other inflammations, the blood being propelled from the center to the circumference of the body occaſions a redneſs of the ſkin, and being in larger quantity preſſes the ſerous and lymphatic veſſels, and occaſions an exſiccation of the ſkin; and when the fever is upon the decline, and the inflammation begins to yield, the ſkin becomes ſofter, and ſweat appears; and in a ſtate of health, when the motion of the fluids is regular, the ſerum, lymph, and the humour of inſenſible perſpiration leave the red blood behind, and flow in a greater quantity towards the ſkin; from whence its whiteneſs, ſoftneſs, and humidity proceed; from hence we ſee why women generally have fairer and whiter ſkins than men.

An inflammation generally produces a ſwelling, but a ſwelling is not eſſential to an inflammation; for the inteſtines are ſometimes, by an inflammation, converted into dry, thin, yellow, or black membranes; in ſcrophulous, and veneral diſorders, there is ſometimes a ſlow erethiſm, with a preternatural velocity

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of the blood, without any apparent ſwelling; conſumptive and phthiſical people are covered with ulcers without any apparent tumour; but ulcers cannot be produced without a previous inflammation. When an inflammation is of any duration it produces a ſwelling; for when the erethiſm of the veſſels, with the velocity of the fluids, is preternaturally increaſed, the action and re-action of the fluids and ſolids being more frequent and ſtrong, the veſſels thereby loſe their tone and contractile force, and by that means their pores are more inlarged, and the humours eaſily paſs through them into the cellular membrane, and produce a ſwelling, which is in proportion to the greatneſs of the inflammation, its duration, and the velocity of the fluids; indeed the erethiſm may be ſo great as to overcome the tonic action of the ſolids all at once, and cauſe an inflammation.

An eryſipelas inflammation differs little from a phlegmon, except that a tumour is not eſſential to an eryſipelas; it penetrates no further than the integuments, and cauſes no apparent ſwelling; its red colour, towards the decline, changes to a yellowiſh colour, which ariſes from the diſunion of the white globules by the rarefaction ariſing from the inflammatory heat, whereby the red colour partly, or intirely diſappears, for the ſkin is hot, dry, and parched. Although an eryſipelas cauſes no manifeſt ſwelling or diſtention, yet it ſeldom can happen in any external part of the body, without occaſioning a greater flux of humours to the part, than what is propelled to it by the laws of circulation in a healthy ſtate, conſequently the part muſt ſwell in ſome meaſure, except in ſome conſumptive habits, where the moiſture of the body is exhauſted, and the *vis vitæ* unable to propel the fluids to the circumference of the body, or in whom the ſebaceous humour, or that oily moiſture collected in the cellular membrane to preſerve the ſenſibility of the nerves, the flexibility of the muſcles, and to regulate the cutaneous evacuations, is wanting; the deficiency of this oily, balſamic humour, that paſſes in a ſtate of health from the veſſels not only into the cellular membrane, but even into the ſubſtance of the bones, very much increaſes the irritability of the veſſels, is the cauſe why ſcorbutic and venereal people break their limbs by very ſmall force; for in the ſlow and continued erethiſm, that accompany theſe diſeaſes, the oily humour cannot always paſs, and when it does, it grows acrid, and is evaporated before it gets a ſupply: when the tonic action of any veſſel or part is weakened, or entirely deſtroyed by an irritation and plenitude, then the pores, by which this humour paſſes into the

contracts faſter and ſtronger, and throws a great quantity of blood on the affected part, in order to remove the cauſe of pain; and the quantity of fluid is in proportion to the irritation or pain, by which the veſſels are dilated and contracted with a greater force, and the heat ariſing from the action and reaction of the ſolids and fluids is diffuſed over all the body, but is greateſt in the part affected, and about the heart.

The force by which the erethiſm impells the fluids againſt the ſides of the veſſels, is in proportion to the variety of ſtimulus, and to the addition it receives from the preternatural velocity, elaſticity, and quantity of blood, and produces various degrees of contraction in the veſſels, and heat in the body; ſo that one degree of contraction produces a ſmall inflammation, another a greater, a third ſuppreſſes the excretions, another increaſes them, while at another time it may be ſo violent as to bring on convulſions.

The redneſs ariſes from a greater quantity of red blood than uſual flowing to the affected part; for as the fluids of the body circulate ſwifter or ſlower, in proportion to their gravity, ſo the red globules having the greateſt gravity, flow in a greater quantity than any other humour to the offended part. We ſee in violent exerciſe, running, walking, leaping, a blow upon the face, &c. the blood is determined to the part affected in a greater column than any other humour; in bluſhing we ſee the ſame; alſo in ardent fevers, and in all other inflammations, the blood being propelled from the center to the circumference of the body occaſions a redneſs of the ſkin, and being in larger quantity preſſes the ſerous and lymphatic veſſels, and occaſions an exſiccation of the ſkin; and when the fever is upon the decline, and the inflammation begins to yield, the ſkin becomes ſofter, and ſweat appears; and in a ſtate of health, when the motion of the fluids is regular, the ſerum, lymph, and the humour of inſenſible perſpiration leave the red blood behind, and flow in a greater quantity towards the ſkin; from whence its whiteneſs, ſoftneſs, and humidity proceed; from hence we ſee why women generally have fairer and whiter ſkins than men.

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the cellular membrane are ſo wide in that part, as to admit the red globules, or rather humours, to paſs through them into the cellular membrane: may not this effect be ſuppoſed ſufficient to occaſion a gout, rheumatiſm, &c. and if ſo, why not uſe opiates and depletion, &c. in the cure of theſe diſeaſes?

In all inflammations, ardent fevers, &c. the ſkin is more or leſs dried, parched and hot, according to the vehemency of the ſymptoms; this dryneſs of the ſkin proceeds from the conſtriction of the veſſels, for in every kind of inflammation the ſerous and lymphatic veſſels are under ſo great a ſtricture by an erethiſm, that they exclude the ingreſs of all humours; hence we ſee a reaſon why a reſolution does not happen before an inflammation ceaſes, and why a moiſture is not perceivable on the ſkin in an ardent fever, 'till it is upon the decline: for by the heat and velocity of the fluids, and accelerated contraction of the ſolids, the blood becomes thicker, and thereby more and more irritates and conſtringes the capillary veſſels, until it ſhuts them up ſo cloſe, that no fluid can enter their orifices; and as the moſt minute veſſels are employed in ſecretions and excretions, particularly of ſweat, and inſenſible perſpiration, ſo in all vehement, inflammatory diſorders, where the functions of theſe veſſels are interrupted or ſuppreſſed, we ſee the ſkin ſoon becomes dry and parched, and no perſpiration, ſweat, or damp, appear upon the ſkin till the blood ſuffers a reſolution, becomes thinner, and thereby takes off the compreſſion from the capillary veſſels, which immediately, by an effort of nature, pour their morbid contents in profuſe ſweating; for the itch, herpes, and other diſeaſes of the ſkin, are produced by an effort of nature, to diſengage itſelf of the irritating cauſe of theſe diſeaſe. Here we ſee how very proper opium, opiate fomentations, hot baths, cooling phyſick, gentle and cooling, diaphoretic depletion, &c. are in the above diſeaſes.

An œdematous inflammation is of two kinds, viz. hot and cold, though indeed the firſt only properly comes under the denomination of an inflammation. The difference between the hot and cold œdema is this, the former has a heat and pain, which is felt when the affected part is touched; it does not yield ſo eaſily to the touch as the watery œdema, in leucophlegmatia, or anaſarca, neither does the ſkin retain the impreſſion of the finger ſo long as in theſe cold diſorders, but longer than in eryſipelas.

An hot œdema ariſes from a quantity of humours preternaturally collected and increaſed, and thereby diſtending the ſides of the veſſels ſo much, that it cauſes

cauſes pain; if the diſtention and pain continues for ſome time, the veſſels thereby loſe their tonic and contractile force, the pores are enlarged, and a free paſſage opened for the humours into the cellular membrane; almoſt the ſame thing is obſerved to happen in a cold œdema, for the veſſels being too much compreſſed by a ſuperabundant quantity of ſerum, the patient feels pain or anxiety, 'till at laſt the veſſels, deprived of their tone and contractile force, permit a free paſſage to the ſerum into the cellular membrane, or into the cavities of the body. This ſwelling is generated by the heat, pulſation, and pain of the affected part. The extremities of the nerves are covered with a mucous or glutinous humour; and the more this humour abounds in the cellular membrane, the more the fluids derived by the force of an inflammation to that membrane are detained, and conſequently the ſwelling is larger; if this inflammation ſlowly affects only a ſmall part of this cellular membrane, and continues for a conſiderable time, the mucous, or glutinous matter, becomes in time ſo inſpiſſated as to form a hard, indurated ſwelling, or ſchirrous tumour, which continues after the cauſe is removed, as it is ſometimes ſo conſolidated as not to yield to any medicines internal or external; in that caſe the knife is the only remedy.

Inflammations of all parts of the body are cured after the ſame manner, only we ſhould have regard to the ſtructure, ſituation, and connection of the parts affected, to the antecedent cauſes of the diſorder, and to the age and conſtitution of the patient. The indication of cure directs the uſe of all ſuch means as may tend to leſſen the erethiſm of the veſſels, to retard the accelerated motion of the blood, to blunt the ſenſibility of the nerves, and to diminiſh the power of the ſtimulus, and to leſſen the heat of the body; theſe are obtained by venæſection, opium, mild, cooling purges, diluents, acids, oily, mucilaginous medicines, gentle, cooling diaphoretics, hot baths, fomentations, and vapours, bliſters, anodyne pulteſſes, liniments, ointments, &c. The *primæ viæ* ſhould be cleared of all ſordes by clyſters, &c. and it is neceſſary to keep the body always open, throughout the whole courſe of the cure, by lenitive electary, prunes, tamarinds, ſalts, manna, ſena, &c.

Having now done with inflammatory fevers, and the inflammations of particular parts, I come now to treat of the other kinds of fevers.

CHAP.

Chap. XV.

Of Intermittent *and* Remittent Fevers.

We call ſome fevers nervous, ſome bilious or putrid, ſome malignant, and others inflammatory; and we have a great variety of irruptive fevers: but in fact, the difference ariſes from the habit of the body, prior to the attack of the fever; for example, we call one a bilious fever, yet whatever is the immediate cauſe of the fever, it may poſſibly be kept up, and the ſymptoms aggravated by an increaſed ſecretion and putrefaction of the bile. In general, in all fevers, the bile ſupports or increaſes it, if it is not the primary cauſe of the fever; and likewiſe in fevers perſpiration is irregular. All fevers therefore may be prevented by keeping up a proper diaphoreſis, by clean houſes, linen, cloaths, &c. by nouriſhing wholeſome food, with a proper quantity of wine, moderate exerciſe, and good fires; if the country is low, moiſt and watery, with much planting and few hills, it is ſtill more neceſſary to be exact in obſerving the above preventives; for cleanlineſs, warmth, and generous food, with drink in plenty, even to a degree of being ſomewhat drunk, if the perſpiration is in the leaſt obſtructed, are almoſt certain preſervatives of health; and above all things never ſuffer the bile to be obſtructed; let it be evacuated as ſoon as the leaſt obſtruction is diſcovered.

Low malignant fevers ariſe from damp putrified air, which, beſides entering the habit itſelf by the abſorbents, alſo obſtructs perſpiration; whence the ſeptic perſpirable matter is confined in the blood, and acts upon the whole maſs of fluids; and we have already ſeen that inflammatory fevers ariſe from changes of weather, and a ſudden ſtoppage of perſpiration in a tenſe habit of body. But when the pores are ſuddenly ſtopt, if the humours at that time tending to corruption, turn upon the bowels, then, in place of an inflammatory fever, a dyſentery enſues.

The intermittent and remittent fever differ only in degree; and both the intermittent, remittent, and bilious fevers, when at the worſt, may be conſidered as a ſpecies of malignant or peſtilential fevers; ſince they have been ſeen with all the virulent ſymptoms, peculiar to that claſs of diſeaſes.

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In the intermittent fever the patient is, between the paroxyſms, entirely free from a fever; the other, viz. the remittent, has it's paroxyſms, but between the paroxyſms there is no intire ceſſation of the fever. The paroxyſms vary in their returns according as this or that humour is moſtly affected; for the paroxyſms are nothing but an effort of nature to diſengage itſelf, excited by the ſtimulus of the offending humour. For upon the internal ſurfaces of the follicles and ſecretory and excretory ducts of the glands, there are bululous veins, whoſe office is to carry off fluids, which would be improper to enter into the ſeveral ſecretions.

And if we ſuppoſe theſe abſorbent veſſels, like other capillary tubes, to attract or admit, according to their different natures, that is according to the ſtructure and diameter of their mouths, different fluids, more or leſs, ſtrongly and eaſily, we ſhall ſee one great cauſe of the various ſecretions performed in the bodies of animals; and according as this or that humour is obſtructed, and the according to the degree of obſtruction, the fit returns ſooner or later with more or leſs ſtrength.

The paroxyſms are commonly uſhered in by a ſtretching, wearineſs, cold, horror, rigor, tremor, paleneſs of the extremities, and anxiety. The ſtomach is from the beginning diſordered with a nauſea, and a ſenſe of oppreſſion, bilious and putrid vomitings, difficult breathing, a quick and weak pulſe, the urine crude, and if the patient dies, it generally happens in the cold fit. As theſe ſymptoms are greater or more numerous the worſe the fever is, and the greater is the ſubſequent heat, which approaches with a redneſs, ſtrong and free breathing, leſs anguiſh and a greater pulſe, a great thirſt and pain in the limbs and head, with high coloured urine, which is generally ſucceeded by a profuſe ſweat, then there is a remiſſion of all ſymptoms.

The paroxyſms of remitting fevers come on with great heat, drought, violent head-ach, and often a delirium; but the ſweat is more imperfect than in the intermittent fever, and often in place of it comes an hæmorrhage of the noſe or looſeneſs.

If evacuations are either neglected or too ſparingly made, then from the injury the fibres of the minute veſſels and viſcera have ſuſtained, obſtructions, ſtagnations, coagulations, &c. are formed, and the patient falls into a con-

tinued fever, or ſome other chronical diſeaſe, as the ſcurvy, dropſy, ſchirrous tumours of the abdomen, &c. or as the bile is much vitiated, into the jaundice, &c.

In the cure of theſe fevers evacuations and corroborants are only indicated; and if timely and liberally uſed, rarely fail of effecting a cure.

I uſed to give a vomit of Ipecacuanha and emetic tartar before the fit, and then camomile tea with nitre. Now I always prefer thoſe vomits as the moſt beneficial, that are endued with ſuch a ſtimulus as makes them operate both ways; after one of theſe vomits, I give the bark; if the patient is weakly, the bile ſhould be evacuated with an infuſion of ſena and emetic tartar gr. 1, which ought to be followed with the uſe of bitters.

When the fever is removed, the patient is to be reſtored by ſtrengthening diet and medicines, and gentle exerciſe; and when able to bear it, he is to be purged ſeveral times, which ought to be ſucceeded by the uſe of the cold bath.

In fine, let it be obſerved, that the ſhorter the intervals of true intermittents are, the ſooner they are cured; and the longer the intervals are, the more time is required for the cure.

For the ſame reaſon they approach nearer the nature of acute fevers, and are ſometimes changed into them; and perhaps for this reaſon, becauſe their cauſe is more moveable and greater in quantity. Thence vernal intermittents, upon the approach of warm weather, are ſpontaneouſly terminated; autumnal intermittents, upon the approach of cold weather, are increaſed.

CHAP. XVI.

Of PUTRID *and* MALIGNANT FEVERS.

PUTRID and malignant fevers are often confounded with the ſlow nervous fever, which undoubtedly is productive of no ſmall errors in practice, for they are in every repect very eſſentially different. For in the putrid, malignant, and petechial fevers, the blood, ſtrictly ſo called, is affected; whereas ſlow nervous fevers, as I have already obſerved in my *Diſſertation upon the Nerves*, have their ſeat chiefly in the lymphatics; the corruption of the humours and diſſolution of the blood are in a high degree obſervable in the putrid and malignant fever; but the ſlow nervous fever frequently runs on to a great length of time, without any conſiderable ſigns of putrefaction.

The bilious, or rather putrid fever, begins with chilline ſs, laſſitude, pains of the head and bones, a diſorder at the ſtomach, ſometimes it attacks with a ſudden delirium and ſymptoms of an ardent fever, and the patient often falls down.

It generally remits, and at night the fever runs high with a great heat, thirſt, parched tongue, violent head-aches, reſtleſſneſs, and often a delirium. The paroxyſms are ſeldom preceeded by ſhivering or a ſenſe of cold, except at the firſt attack. They for the moſt part terminate in an imperfect ſweat; then all the ſymptoms remit, theſe periods go on daily, till the fever inſenſibly changes into a continued or intermitting form, if it does not terminate in looſe ſtools, or in profuſe ſweats.

The paroxyſms are ſometimes accompanied with hæmorrhages, vomiting or purging of green or yellow coloured bile, which ſeems to be the cauſe of the fever, and always haſtens the remiſſion. During the paroxyſms the pulſe is full and quick, and in the remiſſions indicates ſome fever: the blood is florid, the craſſamentum firm; it ſhews little inflammation at firſt, but in the end acquires an inflammatory cruſt. The patient complains of ſtitches, rheumatic pains, the urine is high coloured and crude, the belly coſtive and hard; the patient complains of wind, ariſing from irregular digeſtion; ſome grow yellow, which is an unfavourable ſign, and ariſes from a great obſtruction and putrefaction of the bile.

When this fever terminates in a regular intermittent, the change is preceeded by a critical ſweat about the ninth day, which is the moſt favourable tranſition it can make; but if great care is not taken to ſtop the fever in time, it changes into a continued form with malignant ſymptoms, as petechial ſpots, mortifications, &c. If the weather is very hot, it attacks with all ſymptoms of a καῦσος, but when the weather is cool the fever is milder. Thoſe that die of this fever die of a mortification of the bowels or other viſcera, which is evident from the corrupted ſmell the body emits a day or two before death.

In this fever people are very ſubject to relapſes, which bring on obſtructions in the viſcera, jaundice, dropſy, hard tumours, &c.

The primary cauſe of this fever is wet, damp air, putrid exhalations, &c. when people breathe in ſuch air, they are conſtantly receiving into their blood a multitude of putrid particles, which may paſs off as long as the excretory ducts are clear; but when obſtructed perſpiration enſues, which very ſoon happens, then the ſubtile putrid matter being confined within the body acts upon the fluids, when the chillineſs and ſhuddering are firſt felt; and the wet damps coming in company with the putrid myaſma, relax the fibres of the ſolids, whereby they are diſpoſed to putrefaction, ſo that you ſee the ſolids and fluids are both attacked at the ſame time. Beſides this putrid effluvia is moſt offenſive to the nerves, it irritates them and brings on ſpaſms, obſtructions, palpitations, high fever, languid circulation, chillneſs or intenſe heat, and a variety of contrary ſymptoms.

The humours of the body are more or leſs liable to corruption according to their different natures, which is the cauſe of ſo great a variety in the paroxyſms: the corruption of the bile is quick, therefore ſoon becomes offenſive; it is never however ſo offenſive as the putrefaction of the blood, or other parts of the body, neither is the corruption of the bile the only cauſe that ſupports the fever.

If the paroxyſm, which is nothing but an effort of nature to free itſelf of its load, terminates in a profuſe ſweat, the blood and juices are thereby freed from the more corruptible particles, and the patient recovers; but if the ſweat is imperfect, then the *vis vitæ* is either weak, or the offending matter is in a large quantity,

quantity, which, not being intirely thrown out by the ſkin, is reabſorbed, and acts as a new ferment upon the blood, and brings on another fit.

If the paroxyſms are violent they bring on burning heats, and inflammatory ſymptoms, ſo that the ſevereſt bilious fevers are of a mixed nature between putrid and inflammatory.

I come now to the method of cure. For low fevers when the humours are in a putreſcent ſtate, and the ſolids much relaxed, the principal indications are to clear the *primæ viæ*, correct and expel the more corrupted fluids, and then brace up the fibres: hence vomits, purges, acids, the bark, bitters, cold bath, &c. are uſeful. If the fever is of a mixed nature, bleeding is very proper, and can hardly be diſpenſed with. But if the veſſels are lax, the pulſe weak, and no appearance of a plethora, then bleeding proves hurtful. After bleeding it is neceſſary to give an emetic, which ought to be ſo contrived as to operate both ways. If the patient has a tendency to a laxity, then you may join emetic tartar with ipecacuanha; if the belly remains coſtive, it is neceſſary to open it with ſome lenient phyſic, as an infuſion of ſena with emetic tartar, and every other day give emetic tartar gr. 3 or 4, mixed with occul. ℈; on the intermediate days the ſaline draught, emetic wine with camphorated julep and alexiterial water are very proper. After three doſes of the emetic bolus, uſe the bark with myrrh, camphor, or ſpiritus mindereri. If there is a looſneſs the bark with rhubarb may be given ſooner; if there is a delirium, put leeches to the temples, provided the patient can bear the loſs of blood; but at any rate large bliſters muſt be applied to the head and ſhoulders, and if the delirium does not yield to theſe, it is neceſſary to put two more on the legs, and cataplaſms to the feet; and when the cataplaſms are removed, which ſhould be every twelve hours, the feet ought to be bathed with water: the emetics now muſt be very mild, though gentle pukes and ſaline laxative phyſic are ſtill neceſſary. If there are cholic pains, a tenſion of the belly, with a dry ſkin (which by the bye will rarely be the caſe if the above directions are followed) then mild laxatives and gentle clyſters are indicated. If the body has been kept open during the courſe, then you may give theriac. androm. ℈ 1 with gr. 2 or 3 of ipecacuanha, or gr. ½ or more of emetic tartar with elect. e ſcordio or mithridate, ſalt of amber, and two or three grains of ſquills.

If a diarrhæa comes on it is to be managed as other diarrhæas. In this, and all other fevers, the patient ought to be kept cool, not confined to bed, nor oprreſſed with cloaths; and the food ſhould be ſparing and light, religiouſly avoiding fiſh and fleſh.

When the patient is pretty well recovered, and the viſcera ſound, the cold bath, moderate exerciſe, generous food, with wine, are very proper to reſtore the loſt ſtrength, and prevent a relapſe, which often happens in theſe kind of fevers, and frequently brings on dropſies, jaundice, &c.

The patient ſhould continue the uſe of the bark, and any agreeable bitter, with elixir of vitriol, camphor, or ſpirit. mindereri, for a conſiderable time after recovery; otherwiſe the patient has a much greater chance to fall into a relapſe than to continue in health.

Chap. XVII.

Of the Malignant, Peſtilential, *and* Petechial Fevers.

Let us now take a view of the *Malignant*, *Peſtilential*, and *Petechial Fevers*. Theſe fevers may ariſe from acrimonious blood, agitated by a ſupervening fever; yet they generally ariſe from contagion proceeding from ill aired dirty places, and the putrid animal ſteams from foul, diſeaſed bodies, and the poiſonous effluvia of ſores, mortifications, dyſenteries, ſeptic excrements, ſmall-pox, &c. &c.

The common courſe of infection is ſlow, when there is no great quantity of infectious matter, or when it is not particularly virulent; and when the perſon has not long breathed in ſuch ſteams; he will either eſcape, or have the ſymptoms come on ſlowly; and much will depend upon the conſtitution.

As the origin of theſe fevers is chiefly from contagion, ſo the ſymptoms will vary according to different conſtitutions.

If the diſtemper comes on ſlowly, the firſt complaints are ſmall interchanges of heat and cold, a trembling of the hands, numbneſs of the arms, weakneſs of the limbs, a great debility, and loſs of appetite; which ariſe from the contagious

tagious myaſma affecting the nerves, whereby they are rendered unable ſufficiently and regularly to actuate the muſcular fibres and veſſels; hence the blood in ſome places forms itſelf into grumous concretions, and in others is quite diſſolved.

The diſorder is greateſt at night; the ſleep is not refreſhing; the patient complains of a pain and confuſion of the head; the pulſe tenſe and hard, but commonly quick and ſmall, but ſometimes ſlow and irregular for a time, and unequal. At this period change of air, gentle exerciſe, with a diaphoretic at bed-time, and the liberal uſe of wine, eſpecially *Rheniſh*, will remove the diſorder.

When the fever advances faſt, the head-ach, nauſea, vomiting, pains in the back, loſs of appetite, laſſitude, confuſion of the head, dejection of ſpirits, tremor of the hands, and ſometimes fixed pain in the temples affect the patient; the eyes are fall'n, heavy, and yellowiſh, with a ſlight degree of inflammation; the countenance ſeems bloated, and more dead-coloured than uſual; a noiſe in the ears, a throbbing of the arteries, the proſtration of the ſpirits, weakneſs and faintneſs is very great, the reſpiration is laborious, often interrupted with ſighing and ſobbing; the breath very hot and offenſive, pains in the back, limbs and loins; univerſal weakneſs, and ſoreneſs; ſometimes a great heat, load, and pain, at the pit of the ſtomach, with frequent vomiting of porraceous or black choler, and a moſt troubleſome ſingultus; the matter diſcharged is frequently of a very nauſeous ſmell; the tongue is moſtly dry, and if not frequently moiſtened, becomes hard and black, with deep chops, but ſometimes turns ſoft and moiſt at laſt, with a mixture of a green or yellow colour, and a kind of a dark bubble at the top. In the advanced ſtate the breath is vaſtly offenſive, the tongue ſtiff and black, or of a pomegranate colour; a black furring gathers about the roots of the teeth, the ſpeech very inarticulate, and ſcarce intelligible; the ſkin dry and parched, though ſometimes there are ſhorter and longer ſweats, eſpecially at the beginning, which are very fetid and offenſive; the thirſt commonly, in the augment of the fever, is generally very great; every thing ſeems to have a diſagreeable taſte. Sometimes the patient complains of thirſt, though the mouth and tongue are exceeding foul and dry, which is always a dangerous ſymptom, and ends in a phrenſy or coma. As this fever always affects the head, ſo many die of abſceſſes in the ſubſtance of the brain; ſome have putrid matter formed in the ventricles of the brain, ſome in the cerebellum, others die of a ſuppuration of the

the corticular ſubſtance of the brain; the patient may die of an impoſtumation of the brain; and as the diſeaſe ariſes from contagion, ſo the putrefaction goes through the whole courſe of the diſeaſe, and always terminates, when it proves fatal, in a mortification of ſome part; the inteſtines are moſt ſubject to mortify, few dying without cadaverous and involuntary ſtools. At the onſet of the fever the urine is often crude and pale, but gradually advances to a higher colour, and at length turns darker, like dead, ſtrong, high-coloured beer, and ſmells very rank and offenſive; nay, ſometimes the urine, when there are black ſpots, vibices, and petechiæ, is almoſt black, and very fetid. The blood has been found very various, but in the advanced ſtate of the fever, the *craſſamentum* is reſolved, which is a certain ſign of high putrefaction: if the patient lies warm he is generally coſtive; if cold, a diarrhæa is common.

In the worſt caſes a flux appears in the laſt ſtage, then the ſtools are involuntary, colliquative, ichorous, green, livid, black, or bloody, extremely infectious, and horribly fetid, and of a cadaverous ſmell. If the belly continues hard, ſwoln, and tenſe, after profuſe ſtools, it is the effects of an inflammation, and mortification of the bowels, and a certain ſign of approaching death; for the whole *primæ viæ* become at laſt affected. A gentle diarrhæa is however often beneficial, and ſeems to be the way nature takes to evacuate the morbid matter.

Some are never delirious, but all have a great ſtupor, and ſleep little when the delirium is at the height, the face is fluſhed, the eyes red, the voice quick, and the patient ſtruggles to get up. There is commonly a tremor of the hands, and a *ſubſultus tendinum*, both which increaſe as the pulſe ſinks. The patient is from the beginning dull of hearing, and at laſt becomes almoſt deaf; if the patient has a low voice, the pulſe much ſunk, and the fever protracted, he longs for a cordial; and nothing is ſo acceptable and medicinal as wine; but ſuch as are delirious, with a quick voice, wild looks, a *ſubſultus tendinum*, or violent actions, though the pulſe is ſunk, bear neither hot medicines, wine, nor common cordials. There are certain ſpots generally attend theſe fevers; they are the true petechiæ, of a bright, or pale red, a livid, black, or greeniſh colour; they are almoſt always attended with profuſe hæmorrhages; they are ſmall, diſtinct, and very confluent, but ſeldom riſe above the ſkin; they come out thickeſt upon the breaſt, back, and arms; the ſmall, duſky, brown ſpots, like freckles, are not much leſs dangerous than the livid and the black, though fluxes of blood very ſeldom accompany them. When the patient complains of blindneſs, it is a very bad ſign.

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The eruption of the Petechiæ is very uncertain, ſometimes they appear as early as the fourth or fifth day, ſometimes at the eleventh or fourteenth. They are never critical, nor are they mortal; they only concur with other circumſtances to ſhew the malignity.

The vibices, or large, livid, dark, purple, or greeniſh ſtreaks, and blotches, reſembling bruiſes, are to be dreaded, becauſe they ſeldom appear till near the fatal period, and ſometimes they do not come out till after death; neither are the exceeding white and thick apthæ, like lard, a promiſing appearance: they are all ſoon ſucceeded by a great difficulty of ſwallowing, pain and ulceration of the fauces, oeſophagus, &c. and with an inceſſant ſingultus.

We often meet with an efflorescence, like meaſles, in malignant fevers, but of a more dull hue, in which the ſkin, eſpecially the breaſt, appears, as it were, marbled or variegated; this is generally an ill ſymptom.

Sometimes on the eleventh or fourteenth day, on the coming on of a profuſe ſweat, the petechiæ diſappear, and a vaſt quantity of malignant eruptions ſhew themſelves, but they ſeldom are of great ſervice to the patient. But an itching, ſmarting, red raſh, large, fretting, watery bladders upon the back, breaſt, or ſhoulders; a hot, ſcabby eruption about the lips and noſe, a ſmall delirium, the ſtrength little impaired, turbid urine in the decline, gentle ſweat and moiſture over the body, a ſoft, moiſt tongue, bilious ſtools, ſucceeded by a diaphoreſis, the raiſing of the pulſe with cordials, wine, &c. an abatement of the ſtupor, &c. are good ſymptoms. But a dead coldneſs, a lividneſs of the extremities, are tokens of death within a day or two.

This fever, though of the continued kind, has generally exacerbations at night with remiſſion, and after partial ſweats in the day, and after a long continuance is apt to change into a hectic, a remittent, or intermittent form.

The length of the fever is very uncertain, as it depends upon the malignity, for in proportion to its virulence the courſe is quicker, or ſlower. When the air is at the higheſt pitch of malignity, the courſe of the diſeaſe becomes rapid, ſo as to terminate in five or ſix days, either in death, or recovery. Sometimes death, or a favourable criſis, does not come till the fourteenth or twentieth day; and ſome have died of this fever after four weeks illneſs. From the time that the pulſe begins to ſink, till death, or a favourable criſis, there is leſs change to

be ſeen from day to day in this fever, than any other, not of the malignant kind.

When the courſe is long, that is, beyond ſixteen or ſeventeen days, it often terminates in a ſuppuration of the parotid or axillary glands; and when it does not appear, it is probable the diſtemper is kept up by the formation of ſome internal abſceſs.

Many, if not all, upon their recovery, are long troubled with pains in their limbs, great laſſitude, reſtleſſneſs and dejection of ſpirits, confuſion in the head, vertigo, and noiſe in the ears.

If this fever paſſes through all its periods, without any eruption, then it is called a *malignant*, or *peſtilential fever*; when petechiæ appear, then it is called a *ſpotted*, or *petechial fever*; and if it ariſes from contagion, it is called a *contagious*, *ſpotted*, or *petechial fever*.

In the courſe of this fever, as in all others, we muſt vary our method, according to the condition of the body, ſtate of the diſeaſe, and degree of infection. If the patient is of a ſtrong conſtitution, and tenſe ſolids, has a quick, full pulſe, if the heat is great, or if there is any ſigns of a plethora, then bleeding is very neceſſary, and cannot be diſpenſed with; and, in ſome caſes, at the beginning, may be repeated, if the ſymptoms require it. And if this is done at the firſt onſet of the fever, little more is needful, than to remove the patient to a free and ſound air, and give cordial bitters occaſionally through the day, and a mild diaphoretic at night. Let the patient conſtantly ride out, eat roaſted meat, and freely drink *Rheniſh* wine, or Port, with a little of the ſpirit of ſcurvy-graſs.

If the Phyſician is not immediately called upon the firſt attack, it will be neceſſary to preſcribe an antimonial emetic after bleeding, and at all times where bleeding is not indicated, begin your courſe with an emetic; for, as Dr. *Huxham* obſerves, there is no infectious fever makes an attack upon any perſon, without bringing on a ſickneſs at the ſtomach, and vomiting, as the morbific effluvia are ſwallowed with the ſaliva, therefore we ought to co-operate with nature in promoting the vomiting, by which alſo any bilious, acrid, putrid colluvies, that may lie in the ſtomach, is carried off; which otherwiſe, by growing more and more corrupt, would produce a variety of bad ſymptoms, and greatly increaſe the original diſeaſe; and ſurely, if we ſtudied nature, and purſued what ſhe indicates, we ſhould find ourſelves much happier in cures than often we are.

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The moſt proper emetics are thoſe that operate both ways. For in the beginning of theſe fevers, the whole inteſtinal canal ſhould be unloaded. Let the patient be kept cool, with the windows open, the curtain of the bed tied up, and the bed only covered with a quilt. The beſt poſture for the patient is that between ſitting and lying, but he ought as little as poſſible to lie in bed, and ſhould rather go abroad, even to the top of the higheſt hills in the neighbourhood, and ſhould conſtantly ſip, while abroad, ſome diaphoretic cordial. The diet ſhould be water gruel with wine, jellies, particularly of ſea biſcuit: chamomile tea, infuſion of aromatic, and antiſcorbutic herbs, with the juice of a lemon, and a little *Rheniſh* wine, make a uſeful, diluting drink. Part of the head, where bliſters are not applied, and alſo the temples, ought frequently to be bathed with camphorated ſpirit of wine, &c. The nurſe ſhould often have a ſmelling-bottle at the patient's noſe; and it were well if the ſteams of hot water and vinegar were frequently received by the mouth and noſe. Vomits are to be cautiouſly uſed, when the ſymptoms run high, though they are conſtantly to be repeated every third or fourth day, or as ſymptoms indicate; we need never fear to exhibit a medicine that will give a puke, and a ſtool or two, when indicated, at any time of the fever; but ought never to exceed, at one time, a puke or two, with as many ſtools. As the head is always affected, I conſtantly bliſter the back part of the head, and apply acrid cataplaſms, with garlic, to the feet, with the uſe of the pediluvium, as hot as poſſible, every night, or oftener. This method I continue through the whole courſe.

The very learned Dr. *Huxham* is againſt the uſe of bliſters too ſoon. He deſires the younger practitioners to read *Baglivi*, concerning the uſe and abuſe of bliſters, which I did before and after the Doctor's recommendation; but in all humble ſubmiſſion to that great man, I have found ſo wonderfully good effects from bliſters, that I am determined to continue the uſe of them, till ſomething in practice diſcovers to me their hurtfulneſs. An iſſue, or ſeton, in the neck, when bliſters fail, may perhaps be of great ſervice. In proportion as the pulſe ſinks, ſo ought the bliſters to be increaſed in number; till the arms, thighs, legs, and back, are bliſtered.

In the intervals between the emetics, it will be ſometimes neceſſary to determine the humours downwards, and evacuate the acrid bile, which unqueſtionably is predominant in all putrid, malignant, and petechial fevers, and if it is

not evacuated, it becomes more and more corrupt, and occaſions great anxiety, ſickneſs, and pain, at the ſtomach, &c. For which purpoſe you may uſe a clyſter, or, which is much preferable, a few grains of rhubarb, with $\frac{1}{8}$ or $\frac{1}{10}$ part of a grain of emetic tartar; the infuſion of ſena, with emetic tartar, will anſwer your expectation.

The next care is to keep up a gentle, but conſtant diaphoreſis, for that ſeems to be a conſtant and grand effort which nature attempts, and only makes uſe of vomit and ſtool when that fails, which in theſe kind of fevers is moſt ſucceſsfully done with camphor, emetic wine, with alex. water, or ſpiritus mindereri, &c. Some very much recommend the ſerpentaria.

A diaphoreſis, though extremely uſeful, is not to be promoted with too great force, and if it is too profuſe, it ſhould be checked by a few grains of rhubarb; if the heat is great, and the delirium high, you will find your account in the uſe of acids, as nitre with camphor, the ſaline draught, &c. We are alſo very careful to keep up the *vis vitæ* with the bark, infuſions, and compound tincture of the ſame, with tincture of myrrh, acids, cordials, and bliſters.

Though the fæces are by no means to be ſuffered to remain long in the body, for the accumulation of the fæces proves a ſtrong ſymptom of corruption, yet a looſeneſs is not to be encouraged on account of the weakneſs attending the diſeaſe.

Though the patient is generally wakeful, yet the aſſiſtance of opiates cannot be called in without danger. You will find the ſafe way of procuring ſleep at night is to bathe the feet, renew the cataplaſms, change the linen and bed cloaths, then put the patient in bed with his head very high, and, when in bed, give a light diaphoretic cordial. The longer the patient has been labouring under this fever, the larger doſes of the bark ought to be given, and, towards the decline, very frequently to be repeated. The patient ought never to be long without taking ſomething cordial, as panada made with ſea biſcuit, and a little *Rheniſh* wine. If the delirium increaſes, the eyes look red, and the voice becomes quick upon the uſe of wine, then there is a preſumption of a true phrenitis, which is aggravated by all internal, heating medicines: bliſters, and all poſſible means of revulſion, with cooling, ſaline draughts, are now our only refuge. If a diarrhæa comes on in the decline of the fever, it is to be moderated, but never

never ſuppreſſed; for though the looſeneſs may be conſidered as critical, yet as the ſick are too low to bear great evacuations, it muſt be ſomewhat reſtrained; in order to do this, a bolus of theriaca, and ipecacuanha, is to be given, which not only moderates the flux, but produces a breathing ſweat. When this diſeaſe terminates in a ſuppuration of the parotid glands, the abſceſs ought to be opened as ſoon as matter is formed, without waiting for a fluctuation, or a ſoftneſs of the tumour. Many nervous ſymptoms hang long about the patient after recovery, and he is very liable to a relapſe; both which are cured and prevented by the uſe of the bark, camphor, elixir of vitriol, cold bath, country air, moderate exerciſe, and generous living.

CHAP. XVIII.

Of the SMALL POX.

WHEN one conſiders, that almoſt every old woman pretends perfectly to underſtand the nature of this diſeaſe, and with what forwardneſs the cure of it is undertaken by every illiterate mechanic, and ignorant boaſting quack, who has ſelf-confidence enough to keep the world continually infected with it, by the promiſcuous and indiſcriminate practice of inoculation, it is almoſt enough to diſcourage a regular Phyſician from treating of the *natural* ſmall pox. But, notwithſtanding all the *ſeeming* great advantages which are ſuppoſed to be derived to the community from the general prevalence of inoculation, eſpecially ſince the introduction of what is called Mr. *Sutton*'s method, as I am old faſhioned enough to believe that the *natural* ſmall pox will yet frequently happen, perhaps as often as ever, and that in ſuch a manner as to require the greateſt care and attention of the ſkilful Phyſician for the ſucceſsful treatment of it, I ſhall here ſay a few words about it; tho', after what has been already ſaid of putrid fevers, very little will be neceſſary, as all that can be ſaid will be little more than repetition: For he who well underſtands the nature of putrid fevers, and the proper methods of treating them, will never be greatly at a loſs how to proceed in the management of every ſtage of each ſort of the natural ſmall pox. For my part, how ſingular ſoever I may ſeem, I confeſs myſelf no friend to inoculation; and if I was, certainly I ſhould not altogther approve of Mr. *Sutton*'s conduct in the practice of it. A *noſtrum* in phyſic is generally an impoſition upon the giddy, credulous multitude; and, were it not ſo, it is ſcarce compatible with the character of a good man, to keep

keep any thing locked up within his own breaſt, which, if made public, would be beneficial to the whole community. It is not poſſible for one man in his own perſon, (or twenty in partnerſhip) to adminiſter to the wants of all men, however efficacious, or even infallible, his *noſtrum* may be: and therefore every good man, who by labour and ſtudy diſcovers any thing that may prove of general benefit to mankind, in that which reſpects life and health, ought ſo to publiſh it to the proper and qualified guardians thereof, as that it may be rendered as extenſively uſeful as poſſible. Not that I apprehend Mr. *Sutton* is really poſſeſſed of any thing of this nature; but he has had the addreſs to make the world believe ſo, and this is the point too many aim at. If Mr. *Sutton* arrogates to himſelf the diſcovery of the cool regimen in the ſmall pox, (which is undoubtedly proper in this diſeaſe) I can only impute it to his having more aſſurance than learning; for the cool regimen was known and practiſed before he was born, and recommended by every phyſician who really knew what he was about. But thoſe who are acquainted with the hiſtory of phyſic know what changes and revolutions have taken place in the practice of it, at different times, and in different countries, according as different theories and modes of philoſophizing have prevailed, or as caprice and whim have introduced different faſhions. Such is the nature of man in general, that he is never long contented with any one mode either of thinking or acting, be it ever ſo rational: for the ſake of variety, and to indulge his inventive faculty, he will too often ſtrike out into the greateſt abſurdity, merely becauſe it is new; and there is nothing too abſurd to want admirers and imitators, if it be introduced or countenanced by ſome eminent perſon, under ſome ſpecious and lucky circumſtance.

After this digreſſion concerning inoculation, I ſhall proceed to treat of the *natural ſmall pox*, as there are ſtill many left who muſt and will wait God's time for having it.

The *ſmall pox* is a contagious diſeaſe, occaſioned by a ſeptic virus received into the body, and acting upon the fluids, and thereby bringing on a fever, which has different effects, according to the diſpoſition of the ſolids and fluids.

When the variolous matter attacks a perſon of ſtrong elaſtic ſolids and rich denſe blood, an inflammatory fever enſues, for the ſeptic matter pricks and ſtimulates the nerves, which cauſe the veſſels to contract faſt, and thereby move the blood with great velocity; hence the pulſe is rapid, full and tenſe, the breathing

breathing ſhort and laborious, the heat intenſe, the urine high coloured, the thirſt great, the tongue dry and foul, an acute pain of the head, limbs, and loins, an inclination to vomit, the ſtomach ſore when preſſed with the hand. Sometimes the lungs, brain, throat, or other parts are inflamed.

Again, if the ſolids are relaxed, the diſeaſe uſually comes on with the ſymptoms of a ſlow fever, the ſpirits ſink, the pulſe is weak, quick and fluttering, the countenance pale and fallen, the urine crude and thin, no great thirſt or heat, a giddineſs, heavineſs and drowſineſs, with nauſea, pukeing, univerſal uneaſineſs, weakneſs and wearineſs, and ſometimes epileptic fits, particularly in children.

The ſmall pox that appear after theſe ſymptoms are always of a bad ſort, pale, crude and pitted, never riſing well, or maturating kindly, but continue flat and flaccid, or run together in large watery bliſters, full of thin, undigeſted ichor, and ſo remain to the laſt; whilſt on the face, from a deadly pale cadaverous hue, they turn to a gaſtly black with a very adheſive cruſt; this ſort often proves mortal.

Sometimes the ſmall-pox are attended with a fever of the malignant or petechial kind, in which the craſis of the blood becomes putrid and diſſolved, black and livid ſpots appear, hæmorrhages enſue, the puſtules turn black, gangrenous, and often bloody, after the eruption; and that too ſometimes when the pox are very few and diſtinct: hence we ſee three different kinds of fever, produced by one ſpecies of contagion, and we are obliged in the method of cure to have a regard to the particular fever, as well as to the particular nature of the contagious diſeaſe.

Though the contagion of the ſmall-pox produces the ſame ſpecific diſeaſe, yet the degrees of that diſeaſe are vaſtly different; ſo that the conſtitutions of the patients greatly diverſify the diſeaſe.

Hence ſome authors have divided the ſmall ſmall-pox into *diſtinct* and *confluent*, but in my humble opinion, thoſe who divide the diſeaſe into ſimple and malignant, ſpeak more accurately and agreeably to the nature of the diſeaſe.

The

The variolous pus in inoculation will not infect every one, and the ſame pus will produce different numbers of ſmall-pox in different perſons, and very different degrees of a fever.

Upon the whole, then it is evident, that the previous ſtate of the body greatly contributes to determine the quantity and quality of the ſmall pox.

If therefore we could preſerve or produce a certain peculiar diſpoſition of the blood and humours, and a certain degree of tenſity and mechaniſm of the ſolids, we might entirely elude the force of infection. But all that can rationally be done in this way, muſt be with a view to mend what is faulty, or ſupply what is deficient in the conſtitution. I doubt not but that if perſons rightly prepared, were to receive the variolous contagion in the natural way, they would have it very mildly (and what better preparation can there be than temperance?) A bad ſort of ſmall pox ariſes from a fulneſs of blood, acrimonious humours, or a load of foul matter in the *primæ viæ*, or errors in diet; from theſe inconveniencies, thoſe that are inoculated are guarded, hence the great ſucceſs of inoculation.

We muſt have a particular regard to the patient's habit of body, the conſtitution of the air, and the diſeaſes that are moſt common, if we would practiſe with reaſon and ſucceſs in the ſmall pox, and indeed in all epidemical complaints. Robuſt conſtitutions with tenſe ſolids and rich blood, have a higher fever and greater inflammation, than perſons of lax fibres and poor blood, therefore they can better bear evacuations. When the pulſe is full, tenſe, throbbing, the heat great, the reſpiration hot and difficult, the face and eyes red and inflammed, when there is a delirium, a throbbing of the carotid and temporal arteries, you ought to bleed plentifully, and repeat it if needful, and as theſe ſymptoms generally denote an inflammation of the brain, bleeding in the foot anſwers beſt, as it makes a powerful revulſion: the feet may be bathed two or three times a day, and acrid cataplaſms applied after bathing; the head may be ſhaved, and after due evacuations, the patient may go into a tepid bath; If there are any ſigns of a plethora you may advantageouſly take away a little blood, even though the perſon is low and dejected, for the equilibrium between the ſolids and fluids is to be attended to in the cure of all diſeaſes; if the patient after bleeding continues ſtill low, a cordial mixture with camphor has good effects, and the ſluggiſh oſſilations of the veſſels may be rouſed by applying a bliſter or two; the ſtimulus of an antimonial emetic is very neceſſary to increaſe

the

the contraction of the ſolids, to open obſtructions, attenuate viſcid juices, and to rouſe the dormant ſpirits; if the throat and mouth is raw and ſore with great heat, if there is a tickling cough, theſe ſymptoms ſoon turn to great pain, difficulty of breathing and ſwallowing, and ſometimes the defluctions are ſo great on theſe parts as to raiſe a profuſe ſalivation, and ſo acrid as to excoriate the parts, unleſs you are extremely diligent with gargles, ſyringing, &c. Here early bliſtering the neck, and behind the ears, is indiſpenſably neceſſary: when the countenance is ſunk and pale, the pulſe weak, quick, and trembling, great dejection, pale, crude, limpid urine, alternate chills and heats, little pain and thirſt, ſickneſs at ſtomach, heavineſs, giddineſs, &c. an emetic is the ſaving of the patient's life; the emetic ſhould be contrived, not only to operate by vomit, but alſo to unload the inteſtines of their groſs indurated *fæces*, and heavy putrid bilious colluvies; and indeed this may be done by a gentle cathartic as *Glauber*'s ſalt, manna, cream of tartar, rhubarb, infuſion of ſena, with emetic tartar, &c. The cryſtaline or lymphatic pox never maturate kindly, the matter remains crude, and turns at laſt to a mere watery ichor, running in many places into one another and forming large bladders, which break, corrode, and ulcerate all round them; a great part of this humour is re-abſorbed and enters the maſs of blood again, leaving the puſtles flaccid and empty; this creates terrible diſorders, as convulſive rigors, peripneumony, delirium, dyſentery, ſyncope, &c. When it goes off by a moderate diarrhæa, or a plentiful diſcharge of high coloured ſubſiding urine, the patient often recovers; but blackiſh, bloody, or ſanious ſtools, the belly ſwoln, painful and tenſe, indicates a mortification of the inteſtines; an inclination to make water, without any conſiderable diſcharge, is a bad ſign, unleſs it proceeds from bliſters; here we are to make uſe of bliſters, emetics, pretty ſtrong cordial diaphoretics and opiates with ſquills; the puſtles ought to be opened with a lancet, and immediately dried up; great good ſometimes has been found from diuretics, as the tincture of cantharides, nitre ſal. ſuccini, ſweet ſpirit of nitre. If the variolous matter turns upon the inteſtines and brings on a diarrhæa, we are to be careful not to ſtop but rather forward it; and here we may give gentle opiates with ipecacuanha, and ſupport the patient with cordials, bitters, and ſubaſtringent diet.

Two things we ought always to have in view in the cure of the ſmall pox, viz. to evacuate the variolous matter as faſt as poſſible by every outlet, and to ſupport the *vis vitæ* with cordials, bitters, the bark, &c. In the ſmall,

and black confluent kind, with petechiæ, in which the putrefaction of the humours in general ſeems much greater, and the matter of the puſtules vaſtly more fætid and ſanious than in any other kind of the ſmall pox; this ſpecies is very dangerous and few recover, eſpecially if the puſtules are of the worſt kind, attended with bloody urine and hæmorrhages; acids, aſtringent alexipharmics, preparations of the bark, are of great ſervice. Indeed the bark with bliſters occaſionally, ought to be given immediately after cleanſing the *primæ viæ*, conquering the inflammation and removing the plethora, and the more languid the patient is, and the greater tendency there is to putrefaction, the bark ought to be given proportionably in larger quantities and oftner repeated. What I have already ſaid of fevers is applicable to the ſmall pox, which is a putrid fever, and according to the degree of putrefaction, is more or leſs of a malignant and peſtilential nature. When the reſpiration is laborious, the belly very coſtive (which by the bye, ought never to be ſuffered, and is a ſure ſign that the patient is not judiciouſly treated) when the abdomen is hard and tumid, the bark ought not to be ventured upon till theſe ſymptoms are removed by a gentle emetic.

The greateſt difficulty and danger in this diſeaſe chiefly comes on at the ſtate or turn of the pox, then the grand affair between life and death is to be determined. This change happens much ſooner in ſome than in others. The more favourable the pox, the ſooner is the turn: the days in which the patient is in moſt danger, in the leaſt crude, and moſt common ſort of the confluent, is the eleventh from the firſt attack of the diſeaſe; in the more crude the fourteenth, and in the moſt crude the ſeventeenth; ſometimes, but ſeldom, the patient does not die till the twenty-firſt; but the ſpace of time from the eleventh to the ſeventeenth, as the evening comes on, the patient is conſtantly tortured with fits of great inquietude.

At this time, if the face, hands, and feet continue full, and the fingers diſtended; if the puſtules of the face, before ſmooth, begin now to grow rough, and to throw out a yellowiſh matter in colour like a honey-comb, the diſeaſe promiſes a happy termination; for the more the matter is kind and perfect pus the better. The puſtules about the face as they ripen, grow more rough and yellow, but on the hands grow whiter and ſmoother; the more red, hot, ſtretched and ſwelled the ſpace between the puſtules appears, about the time of their impoſthumating, ſo much the greater hopes, becauſe it is a ſign of the circulation being preſerved there.

On

On the eleventh day the ſwelling of the face and inflammation diſappear, the puſtules being now ripe, grow dry and fall off; on the fourteenth or fifteenth, they entirely periſh, except perhaps ſome obſtinate puſtules on the hands, which continue longer, and ſometimes break.

But on the other hand, at this time we are often ſurpriſed with a ſhocking change and terrible ſymptoms; the ſwelling of the face ſinks, the ſalivation ceaſes, the puſtules become flaccid, the interſtices pale, livid, and aſh-coloured; a rigor, fever, difficulty of breathing, faintneſs, ſickneſs, anxiety, tremors, ſubſultus tendinum, delirium, &c. ſoon follow. If the puſtules break out very numerous the ſecond or third day, it is a ſign they will run together; the diſeaſe increaſes, if they do not fill well and keep up round and properly pointed, after the compleat eruption, but grow flat, have ſmall depreſſions or black ſpots in the middle; if they are not ſurrounded with a florid baſe, and appear wan or darkiſh coloured; if they entangle with each other ſo as to appear like a red bliſter over all the face, and then turn to a white pellicle, glewed to the face, and are not much higher than the ſurface, which daily grows more rough and of a duſky colour; if the urine hath continued, or groweth pale, crude, and thin; if the carotid and temporal arteries throb much, no ſmall danger is impending, and you may prognoſticate that the ſtate will be highly dangerous.

Now in order to know how to proceed at this critical time, I ſhall briefly go over the ſeveral ſymptoms.

If the ſwelling of the face is not regularly ſucceeded by that of the hands and feet, which is nothing elſe but a regular and critical tranſlation of morbid matter to thoſe parts, and if, when the ſalivation begins to abate, the tumor of the face ſubſides; theſe are bad ſigns, becauſe the morbid matter hath taken another courſe, and falls in upon the internal viſcera.

In this caſe bliſters applied to the wriſts and ancles, with the liberal uſe of bark and myrrh, are of great ſervice, the one draws the humours to theſe parts, whilſt the other drives them from the center to the circumference.

If head-ach, ſickneſs, load at the ſtomach, great reſtleſſneſs or ſtupor, come on about the ſixth or eighth day from the eruption; if the patient is thirſty, hoarſe, his ſenſes exceeding dull; if he frequently coughs as he drinks, and the liquor regurgitates through the noſe, the patient will ſoon leave the world.

If the body is coſtive, which moſt commonly it is about this time, if not prevented; if the patient makes frequent and vain efforts to go to ſtool; if the urine is obſtructed, then the indurated fæces ought to be ſoftened and brought away by laxative cliſters, which may be ſucceeded by gentle emetics.

If the puſtules ſmart it is a good ſign, but if neither ſkin nor puſtules inflame or grow painful, then the *vis vitæ* is too much ſunk, and the circulation too weak to concoct the matter, therefore the *vis vitæ* is to be raiſed, and the circulation accelerated. Some give opiates towards the criſis, but I have always thought opiates hurtful in any ſtate of the ſmall pox.

If the ſecondary fever is attended with a ſtrong, quick, hard pulſe, a thumping of the carotid arteries, inteſtine heat, difficult breathing, acute head-ach or delirium, then bleed plentifully without delay; indeed the patient may be bled in any ſtage of the ſmall pox, if there is an indication for it. But if the pulſe falls, the patient fainty, the puſtules and interſtices pale, ſhrivelled, ſunk or livid, the extremities cold and clammy, then the patient ought to be covered with bliſters, and filled with cordials.

When the ſalivation abates, the matter commonly becomes tough and viſcid, and it is with the utmoſt difficulty that the patient can ſpit it up: gentle pukes procured by oxymel of ſquills, not only expectorate and attenuate the viſcid matter, but promote a diſcharge both by urine and ſtool; gargariſms made of vinegar of ſquills, honey, and tincture of myrrh, are not to be neglected, and the patient ought always to be ſipping ſome diluting liquor, and frequently retain part of it in his mouth; this is very neceſſary in every ſpecies of the ſmall pox, but more particularly in the black confluent kind. When the tongue, fauces, &c. are covered with a very thick adheſive, whitiſh or brown pellicles, then gargles or any thing elſe avail but little. When the incruſtation is compleated, the perſpiration is greatly obſtructed, the pus and ſanies are confined within the habit; the conſequence of which is, an attenuation and corruption of the whole maſs, which produce delirium, phrenſy, quincy, peripneumony, pleuriſy, vomiting, diarrhæa, inflammation, impoſthume of the liver, biles, tumors, abſceſſes, waſting, conſumption, &c. Therefore the morbid matter ſhould be ſpeedily evacuated by vomit, ſtool, and urine.

After the patient has recovered of the ſmall pox, it is neceſſary that the body be thoroughly cleanſed of the remains of the diſeaſe. After the cathartics, the body is to be reſtored to its former ſtate by drinking milk, country air, &c.

SIMPLICIA.

Calamintha Montana. *Calamint.*

Differs little otherwiſe from ſpearmint, than its being ſomewhat hotter, and of a leſs pleaſant odour; therefore preferable in hyſteric caſes; it was formerly recommended as an emetic, pectoral, utrine, and diuretic; but it is now uſed only as a hot, pungent, alexipharmic.

Melissa. *Balm.*

Has a pleaſant ſmell, moderate, aromatic, ſabacrid taſte; is a weak aromatic, drunk as tea, and continued for ſome time, does ſervice in a weak, lax ſtate of the viſcera; lightly affidulated with juice of lemons, it turns of a fine red colour, and is a very grateful drink in parching fevers.

Scordium. *Water Germander.*

Has a bitter taſte, and ſtrong, diſagreeable ſmell; is deobſtruent, diuretic, and ſudorific; good in fevers; helps to raiſe the ſtrength, and promotes ſweat, or the eruption of ſuch humours as do often critically terminate ſuch diſeaſes. Some mention it as good againſt hyſterics, and ſuppoſe that it kills worms, and deterges malignant and inveterate ulcers. There was formerly in the ſhops a water called *Aqua Scordiæ Compoſita*, diſtilled from the juices of goat's rue, ſorrel, ſcordium, citron ℔ i, digeſted three days before diſtillation. It was ſaid to be an excellently efficacious ſudorific in malignant caſes.

Calendula. *Marygold.*

The flowers are aperient, attenuating, cardiac, alexipharmic, and ſudorific; good in uterine obſtructions, and jaundice; have no taſte, and but little ſmell. The leaves have a viſcid, ſweet, ſaponaceous, pungent, warm taſte, and are ſtimulating, aperient, and antiſcorbutic.

Camphora. *Camphor.* D. gr. 3 to ℈i.

Is a ſolid concrete, extracted from the wood and roots of a tree growing in *Japan*; is white, pellucid, and unctuous to the touch; has a bitter, aromatic, acrid

acrid taſte, accompanied with a ſenſe of coolneſs; has a ſtrong, fragrant ſmell; is totally volatile, and inflammable; ſoluble in vinous ſpirits, oils, and mineral acids; is a moſt powerful antiſeptic, and one of the moſt efficacious diaphoretics; has been long and deſervedly celebrated in fevers, malignant, and epidemical diſtempers. Camphor frequently ſucceeds in deliriums, where opiates fail of procuring ſleep, and ſometimes aggravate the ſymptoms; it quickly penetrates through the whole body, and notably increaſes perſpiration; the quantity of a dram, diſſolved in ſpirit of wine, and duly diluted, does not raiſe the pulſe, or occaſion any heat, but rather cauſes a ſenſe of coolneſs about the præcordia; it gives motion to the ſtagnating humours in the moſt diſtant parts, and promotes their expulſion through the emunctories. It has moſt excellent effects in all diſeaſes, whether acute or chronical, which proceed from an acrid, or putreſcent ſtate of the juices; it corrects the acrimony, and expels the putrid morbid matter through the pores of the ſkin, and prevents an inflammation, or ſphacelus, where there previouſly is any diſpoſition thereto. It ſtrengthens the veſſels, reſtrains hæmorrhages, that happen in acute fevers; promotes critical and periodical evacuations; expels the venereal virus; and many inſtances there are of the *Lues Venerea* being cured by camphor alone, with a purgative given before it; and, in recent taints, there is nothing equal to it. In all continual fevers, pleuriſies, and all inflammatory caſes where there is a tendency to mortification, in intenſe heat and thirſt, and where the ſkin is dry and parched, whether before or after a delirium, camphor, joined with nitre, produces moſt happy effects, and almoſt immediately relieves the ſymptoms, and procures calm ſleep, and plentiful ſweat, without fatiguing the patient: by its antiphlogiſtic virtue, it prevents the ill effects of more irritating medicines; cantharides, and acrid, ſtimulating cachartics and diuretics, by the admixture of camphor, become mild and ſafe. It has a wonderful efficacy; triturated with almonds, it mixes with water in form of an emulſion; and as it is totally ſoluble in expreſt oils, it may be very commodiouſly exhibited in the form of an oily draught.

CORTEX PERUVIANUS. *Peruvian Bark.* D. ℈i to ℥i.

Is the bark of a tall, ſlender tree growing in *Peru*; the outſide is brown, and the inſide of a ruſty iron colour; has an aromatic ſmell, and a bitter, aſtringent, warm taſte; is a powerful antiſeptic, and the moſt effectual remedy in intermittent

mittent fevers of all kinds, and is ſafe in all ages and conſtitutions, if judiciouſly and ſeaſonably adminiſtered, with due regard to the circumſtances of the diſeaſe. The modern practice, previous to the exhibition of this medicine, gives an emetic at the beginning of the paroxiſm, and in ſome caſes a cathartic; in plethoric habits venæſection is premiſed, which renders the bark more ſafe, certain, and ſpeedy in its operation. Where theſe evacuations are neglected, or not ſufficiently and plentifully performed, the diſeaſe, if of long ſtanding, ſcarce yields to the bark; or if it appears at length ſubdued, yet the patient does not recover his ſtrength, but ſoon ſuffers a relapſe, or falls into a dropſy, aſthma, dyſentery, &c. We are to begin to give the bark at the end of a paroxiſm, and repeat it every third or fourth hour, during the intermiſſion, in the quantity of ʒſs, more or leſs, according to the circumſtances of the patient; where the conſtitution is tickliſh, as about the time of the menſtrual diſcharges, we may give every third or fourth hour ℥ß or ʒ of an infuſion of the bark in red wine, allowing ℥ß for every two pounds of red wine, and letting it ſtand forty-eight hours in a ſand heat before it is uſed. Where the fever is of a bilious kind, and accompanied with great heat, a little nitre is given along with it; and in all caſes, moderate exerciſe promotes its effects. At firſt it generally looſens the belly, and ſometimes operates as a cathartic, and by this means ſupplies the omiſſion of evacuations before its exhibition; if the purging continues, it does not anſwer the intentions deſigned by it; in ſuch a caſe a little opium is added, which effectually ſuppreſſes the flux; if after this the patient continues too coſtive, recourſe is had to clyſters; the looſeneſs, however, ſhould not be ſtopt too ſoon, on the contrary, where the bark, of itſelf, does not produce this effect, it is neceſſary to join a little rhubarb to it; ſo as to occaſion, for a time, two ſtools a day; by this means the diſeaſe is more effectually cured, and the patient is leſs ſubject afterwards to fall into a dropſy, or any other chronical diſeaſe: after a dram or two of rhubarb has been taken, it is then to be diſcontinued, and the bark exhibited by itſelf. During the uſe of the bark, the pulſe, which, between the paroxyſms, is generally weak and ſlow, becomes ſtronger and quicker; the appetite mends, the patient becomes more chearful, and perſpiration increaſes. Theſe are all certain ſigns that the bark agrees; it notably increaſes perſpiration, which is the reaſon that fevers yield more eaſily in warm than in cold weather. Thoſe fevers, which have continued all winter, generally go off ſpontaneouſly in the ſpring; and exerciſe alone has ſometimes performed the cure. If the fever is removed, the

the bark ſhould be continued, to prevent a relapſe, and evacuations, unleſs abſolutely neceſſary, ought to be abſtained from, otherwiſe the fever is brought on a-new. The diſeaſe is ſeldom cured, before ſome conſiderable evacuation, either by ſtool, urine, or perſpiration, enſues; if this does not come on ſpontaneouſly, a cathartic, diuretic, or diaphoretic, is given in conjunction with the bark, otherwiſe the patient continues weak, and without appetite, till the diſeaſe returns, or changes into one of a different kind. Steel, ſometimes, joined with the bark, anſwers very valuable purpoſes, and is one of the fineſt ſtomachic bitters in the *materia medica*. In ſymptomatic agues, hectic and purulent fevers, cacochymic habits, and where the hypochondres are ſwelled, the bark for the moſt part is prejudicial. Its manifeſt aſtringency forbids the uſe of it in obſtructions of the abdominal viſcera, or ſuppreſſion of any critical evacuation, until the obſtruction is once removed, and the evacuation has had its due courſe. It is ſaid to be hurtful in abſceſſes, and is manifeſtly ſo in inflammatory fevers; but is of wonderful ſervice in malignant, epidemical, peſtilential, and nervous fevers: when from a bad habit, old age, fatigue, &c. the patient is extremely weak, and the pulſe low, the bark proves a medicine of excellent ſervice. It is likewiſe eminently ſerviceable in gangrenes, mortifications, and in the ſmall pox, where the puſtules do not fill properly, and when the petechiæ ſhew a diſpoſition to a gangrene: it fills the empty veſſels with matter, and changes the watery ſanies into a thick white pus, the petechiæ become gradually of a pale colour, and at length diſappear. The bark is good in periodical head-achs, hyſteric, and hypochondriacal fits, and in all nervous caſes, and diſorders that have regular intermiſſion; it ſtrengthens the whole nervous ſyſtem, and proves uſeful in weakneſs of the ſtomach, and in ſundry chronical diſorders, proceeding from a great laxity of the fibres; in obſtinate, uterine fluxes, and old gleets, the bark joined with chalybeates has notable effects; obſtinate coſtiveneſs has been cured by it: its virtues chiefly reſide in a reſinous ſubſtance, which is extracted in great perfection by rectified ſpirit, but aqueous liquors gain little from it without ſtrong coction; hence an aqueous extract proves not only leſs in quantity, but likewiſe inferior in quality to one made by rectified ſpirit. There is kept in the ſhops two extracts of the bark, called *extractum corticis Peruviani molle, et durum*, deſigned for ſuch patients whoſe ſtomachs are too weak to bear a due quantity of it in ſubſtance. Gr. 10 or 12 of the hard extract are equal to about 3ſs of it in ſubſtance. This extract might be very uſeful, and poſſeſſes nearly all the virtues of the bark,

if

if both water and ſpirit of wine were uſed in the menſtruum for preparing it; but neither of them is ſufficient without the other. It might be made with great advantage, after the ſame manner as that of jalap. When the bark is given in the ſolid form of bolus or electary, it ſhould be made up with mucilages. The extract of liquorice conceals the diſagreeable taſte of the bark. The extract of logwood, with a proper quantity of mucilage joined with the bark, forms an agreeable, and very elegant compoſition.

Eleutheriæ Cortex, vel Caſcarilla. Has its name from one of the *Bahama* Iſlands, called *Elutheria*, and is ſometimes ſold for the *Peruvian* bark; it is of a paler brown colour on the inſide, leſs compact, and more friable than the *Peruvian* bark; its taſte is bitterer, more pungent and hot, yet leſs diſagreeable; has more fragrance, and in ſome caſes is preferable to the *Peruvian* bark. A tincture of it, in alkalized vinous ſpirit, proves carminative and diuretic; is good in arthritic, ſcorbutic, and calcalous caſes; cures epidemical fevers, attended with petechial ſpots, and is excellent with alexipharmics, when the petechiæ are come out; is effectual in the cure of dyſenteries, that ſometimes ſucceed theſe fevers. It procures a plentiful ſweat without fatigue or loſs of ſtrength; and if the patient does not ſweat, it procures three or four ſtools a day; and where the menſtrual, or hæmorrhoidal fluxes were ſuppreſſed at the beginning of the diſorder, they generally appear upon the uſe of eleutheria. Some prefer it to the *Peruvian* bark in the cure of intermittents, as being leſs aſtringent. It is given with ſucceſs in flatulent cholics, internal hæmorrhages, dyſenteries, the diarrhæas of acute fevers, and in epidemical dyſenteries, where ipecacuanha proves ineffectual. It raiſes the ſtrength, procures appetite, enlivens and chears the whole man. Let the patient, while he takes the bark, eat ſolid food, drink wine to ſtrengthen the body, and enable the ſpirits more eaſily to drive out the diſeaſe. Some forbid milk during the uſe of the bark, becauſe it lies heavy upon the ſtomach; but to all it has not this effect; and we can ſee no reaſon for forbidding the uſe of it. Others ſay that the long and continued uſe of the bark brings on hypochondriacal melancholy; but there is no better ground for this opinion than the former; it is ſurely a very effectual remedy for hypochondriacal melancholy; therefore we can hardly think that a long or continued uſe of it can produce it: It may indeed be hurtful to young children, and is not too liberally to be uſed in the firſt years of childhood, as there is ſome reaſon to think that it would impede their growth.

RADICES.

CONTRAYERVA. *Counterpoiſon.* D. gr. 10 to 31.

Has a red brown colour without, and pale within; an aromatic ſmell, and ſomewhat aſtringent, warm, and bitter taſte; is a mild alexipharmic, and a good and uſeful diaphoretic; forwards cuticular diſcharges; is good in the ſmall pox and meaſles, where an expulſion is required; and is of great ſervice in all fevers, by promoting and keeping up a beneficial diaphoreſis. Water, and rectified ſpirit, extract its virtues.

IMPERATORIA. *Maſter Wort.*

Has a very fragrant ſmell, not unlike angelica, but ſtronger, bitter, warm, pungent taſte; is a good alexipharmic, and detergent; good in the jaundice, cachexy, and dropſy, and promotes the ſecretions by urine and perſpiration.

MEUM ATHAMANTICUM. *Spignal.*

Has a very warm, pungent, bitter taſte, and pleaſant aromatic ſmell; is a uſeful aromatic and carminative; removes obſtructions; promotes the uterine diſcharges; is a good alexipharmic, and proves ſerviceable in all nervous and hyſteric caſes.

NARDUS. *Spikenard.*

Has a ſtrong flavour, and warm, pungent, bitter taſte; is a good ſtomachic, and carminative; alexipharmic, diuretic, and emmenagogue; ſtrengthens the fibres, and expels crude flatulencies.

PYRETHRUM. *Pellitory of Spain.*

Has no ſmell, but a hot acrid taſte; is diſcutient; forwards a diaphoreſis; attenuates, draws or ſqueezes out of the fibres and glands viſcid, phlegmatic juices; purges watery humours; good in cachexies, and all lethargic complaints from too much cold and moiſture, as palſies, numbneſs of the limbs, &c. is a good maſticatory for promoting the ſalival flux, and evacuating viſcid humours from the head and neighbouring parts, whereby it often relieves the pain of the tooth, and ſome kinds of head-achs.

SER-

SERPENTARIA VIRGINIANA. *Virginian Snake Root.* D. gr. 10 to ℈1.

Has an aromatic ſmell, and warm, bitter, pungent taſte; is an excellent antiſeptic; a warm diaphoretic, and diuretic, a good alexipharmic; and is one of our principal remedies in malignant, and epidemical fevers; good in nervous and paralytic caſes. Both watery and ſpirituous liquors extract its virtues by infuſion, and the doſe of that may be from ʒ1 to 2.

VALERIANA. *Valerian.* D. from ℈1 to ʒ2.

Has a ſtrong, aromatic, and fætid ſmell, an unpleaſant, warm, bitter, and ſubacrid taſte; is the moſt active and volatile of all the vegetables of our growth, and ſeems chiefly to act by promoting perſpiration in a gentle diaphoreſis; drank as tea it is an admirable diluter, and is of great uſe in all nervous caſes, and epilepſies, proceeding from a debility of the nervous ſyſtem; good in all hyſteric fits, and, when joined with camphor, opens the minuteſt obſtructions, and cures obſtinate agues. It is proper to give a purge before the exhibition of it. Its unpleaſant flavour is concealed by the addition of mace. The root powdered with cinnabar of antimony, and black hellebore, has admirable ſucceſs as an alterative, diaphoretic, &c.

SENEPA. *Rattle Snake.* D. ℈1 to 2.

Grows ſpontaneouſly in *Virginia*, and bears the winters of this climate; has an acrid, bitter, and ſomewhat nauſeous taſte. The *Indians* are ſaid to uſe it in curing the bite of a ſnake; the uſe of it here is recommended in pleuriſies, peripneumonies, and other inflammatory caſes; is diuretic, diaphoretic, and cathartic, and ſometimes emetic; but the two laſt operations may often be prevented by giving it in ſmall doſes along with ſome aromatic ſimple water. It often proves uſeful in diſeaſes where the common diuretics and hydragogs have failed, as it acts by liquifying the juices. It is proper to join ſome cathartic with it.

ANIMALIA, &c.

COCCINELLA. *Cochineal.* D. gr. 2 to 8.

Is a ſmall grain of a red colour, brought from *Mexico* and *New Spain*; is an animal, that ſticks to the leaves of a certain tree in that country; it is ſaid to

be ſudorific, carminative, and cardiac; but none of theſe virtues the moderns expect to find in it; the only uſe it now ſerves for in medicine is to colour drugs, for which it is very uſeful. Watery, and ſpirituous liquors, extract its virtue, or rather its colour.

AQUA. *Water.*

Water, when pure, is a fluid ſalt, volatile, and void of flavour, conſiſtingof ſmall, ſmooth, hard, and porous ſpheras, of equal diameters, and equal ſpecific gravities; their ſpherical figure ſuffer them to touch only in one point, and ſo the retraction, or rather bearance upon one another is but ſlight; their ſmoothneſs gives them power of ſliding eaſily over the ſurfaces of each other, in obedience to every preſſure which conſtitutes their fluidity; and as their friction upon each other is ſmall, ſo they conſtitute a fluid matter: their hardneſs ſhews us why they are incompreſſible when undilated by heat, and free from air: their porouſneſs explains to us why they are of ſo ſmall a ſpecific gravity; their rotundity fits them to be ſurrounded by every thing that is flexible, and to carry it along with them. The reaſon that pure water has no ſavour or taſte, is becauſe its flexible parts ſlip over the tongue, and are not ſharp enough to prick the nerve that conveys the taſte. The various flavours and qualities of water ariſe from the mixtures with which it is ſaturated. All liquors are more or leſs fluid as there is more or leſs mixture of their bodies with the watery particles. Water is never found free from earthy parts more or leſs; for the conſtituent parts of this fluid ſeem to be not only ſpherical in their figure, but globular and hollow in their internal ſtructures; for if water was not made up of bubbles, or round globular parts, we cannot eaſily conceive how it comes to be fluid, for things that have many corners will not run downwards upon a gentle declivity; nothing but ſome outward force can carry them on, but things that are perfectly round or ſpherical, will not lie upon a perfectly ſmooth place, unleſs exactly horizontal, without having one part higher than another, otherwiſe one ſide of the round thing will be heavier than the other, which puts all in motion, and ſo ſucceſſively, till it meets with reſiſtance. If the watery particles were not porous and hollow, water might be as heavy as gold, for weight is in all bodies proportionably as their quantity of matter, there being an equal propenſity, if I may ſo call it, of all bodies whatſoever towards the earth, which is always ſenſible when the impediment of the medium is ſo far taken away: and accordingly all bodies

deſcend

deſcend in vacuo, or rather as much of vacuum as we can by art obtain with equal velocity; a guinea and a feather fall with equal ſwiftneſs in an exhauſted receiver. Water is always found to contain ſome heterogeneous matter, which it is impoſſible for art entirely to free it from, either by filtration, or any other means. It is a uſeful and neceſſary article of life; and if it was leſs common it would be more eſteemed. The conſtant ſervice it is of in food and drink is too well known to need to be taken notice of here. The medical virtues of it are what we are concerned about. Water is the more valuable the leſs it is mixed with heterogeneous particles, which is known from its weight; for the lighter water is, the purer and finer it is. In ſome ſtomachs, relaxed from intemperance, water drank in the morning, not only helps to waſh off a great deal of ſlimy filth, the remains of a debauch, but alſo to aſtringe the fibres, and draw up the membranes to a due tenſity. It is the beſt diluter in phyſic, and, properly ſpeaking, the only one: it is deterſive, and diuretic; is a moſt certain and ſafe diaphoretic, and ſudorific: It may juſtly be called the *febrifugum magnum*, for nothing can be given with ſo certain and ſafe ſucceſs as water in the beginning of fevers; it is alſo a noble deobſtruent, aſſiſted with a grain or two of calomel, or other preparations of mercury, in almoſt all chronic caſes. How many lives might have been preſerved, if water had been given inſtead of that bold, indiſcreet uſe of hot cordials in fevers, which increaſed the motion and rarification of the blood, and brought many to their graves, that if entirely let alone would probably have recovered? For in all fevers it is well known the quantity of ſerum is dried up by the feveriſh heat, and the blood becomes viſcid, and unfit for free circulation; but in order to remedy this fault, we are not to add fuel to the fire, and burn up with hot fiery medicines, but we are to give a cooling, diluting liquor in great plenty; which, if we neglect to do, the fever will turn the juices of the body to little better than poiſon; for of all corrupted juices that turn to poiſon, animal juices are the worſt; and I doubt not that the humours of our bodies, ſome of them at leaſt, by a long ſtagnation, and particularly in violent fevers, may be raiſed to that degree of putrefaction, as to be as bad as poiſon; and any fever almoſt, either by the ill diſpoſition of the humours of the body, or by miſmanagement, may be raiſed to a high degree of malignity, even to the plague itſelf. Water is an innocent and powerful aperient, opens obſtructions, cools the blood, promotes circulation, and inſenſible perſpiration; creeps, by the fineneſs of its parts, into the minuteſt veſſels; cools and dilutes the humours that form obſtructions,

imbibes,

imbibes, abſorbs the acrid noxious ſalts, which are apt to ſtagnate in the capillary veſſels, and carries them off by tranſpiration.

There is ſcarce any county in *England*, which does not contain *ſaline* medicinal purging ſprings, which are of great ſervice to cleanſe the *primæ viæ*, &c. There are likewiſe in many parts of *England*, *aquæ ferrugineæ*, ſteel waters, as *Tunbridge*, *Scarborough*, *Hampſtead*, *Iſlington*, and *Llandryndod* in *Wales*. There is not, perhaps, any one alterative of greater efficacy than chalibeate waters; and yet with how little care, or due conſideration, do many run into a courſe of them; they ought not, however, to be uſed in wantonneſs and diverſion, for they will either do good or hurt. Whoever takes iron in medicine, if it paſſes the firſt digeſtions, and mixes with the blood, will find the body warmer and the veins full and turgid. In plethoric habits, therefore, theſe waters are to be forbid, otherwiſe fevers, vertigoes, epilepſies, and apoplexies, &c. are the conſequence; for the blood being rarified too much, crouds the veſſels, and makes thoſe in the brain, preſs too much upon the nerves, whereby the whole ſyſtem is diſordered. In moſt young perſons proper evacuations ought to be made while they are drinking, eſpecially if they render them coſtive. To ſuch as by long illneſs, or any other cauſe, have their blood rendered thin, poor, cold and watery, theſe waters will give wonderful relief; for the chloroſis or green-ſickneſs, and all obſtructions of the viſcera, eſpecially of the kidnies or ureters; they give wonderful aſſiſtance alſo in a relaxed tone of the ſtomach; they greatly aſtringe the fibres, and bring them to a due tenſity, although at firſt their roughneſs occaſions them to be thrown up again by vomit.

Beſides the internal uſe of water, it is uſed externally in *balnea*, *baths*, as the *balnea calida*, or *thermæ*, hot baths of *Somerſetſhire*. Another there is of an inferior note at *Buxton*. To enumerate the extraordinary virtues of the *Bath* waters, both from drinking them and bathing in them, would take more room than we can here allow, eſpecially as they are learnedly and fully ſet forth by doctors *Guidott*, *Oliver*, and *Sutherland*; but we ſhall in general obſerve, that they are good in all languors, debility, and any waſte of conſtitution that is not out of the poſſibility of repair; they are like a fermentation which ſupple and ſtrengthen the parts all over the body at once, and by gently ſhaking and undulating the fibres, help forwards thoſe animal motions which are ready to be at a ſtand. In old pains and aches, the remains of nervous diſtempers, and where

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ſome particular parts continue contracted, or have any humours fixed upon them which cannot otherways be diſlodged, theſe waters pumped upon ſuch parts hot from the ſpring, do more towards a cure than all the compoſitions of pharmacy. General bathing in theſe ſprings cannot but wonderfully open the infinite number of ſecretory orifices upon the ſurface of the ſkin, and clear the cutaneous ducts of matter which is apt to ſtick in them; by the aperture of which the fluids of the whole body have more room to flow; which is of great ſervice to the animal œconomy. Thus are rheumatiſms of many kinds, arthritic pains, contracted, and paralitic limbs, with all the deplorable attendance of aches and lameneſs, cured by what is more a pleaſure and indulgence than a medicine. Theſe waters internally uſed amazingly warm and ſtrengthen a decayed ſtomach, eſpecially if relaxed and almoſt worn out with luxury and debauch: the moſt grievous nauſea, and vomiting, from theſe cauſes, have been removed by them, alſo abſceſſes and ulcerations. But while we are mentioning the great utility of hot baths, we muſt not neglect to mention the noble cures performed by the *balnea frigida*, or *cold bath*. There are hardly any chronic diſeaſes but the cold bath may be made uſe of to advantage, if the conſtitution has not ſomething that particularly forbids its uſe, which are chiefly corpulency and unſound viſcera. In very fat people the fibres are ſo ſtuffed round, and as it were, bolſtered up, that they have not room to vibrate, and contract with the ſudden ſqueeze of the bath; inſtead therefore of inforcing their ſprings and ſhaking off any unneceſſary incumbrances, they will only be ſtrained to no purpoſe, and conſequently weakened; for whereſoever any effort is made to remove any thing by an elaſtic body, if the firſt exertion fails, every impetus afterwards languiſhes, and the ſpring is ſpoiled; and in unſound viſcera, or where one part is weaker than the reſt, ſuch an additional force as the ſudden contraction the bath gives the ſolids, will preſs the fluids on that part very much to its damage; which may occaſion either the burſting of the veſſels, or promoting the diſcharge of ſome ill humours upon that part, which otherwiſe might be driven off elſewhere: but if nothing of this nature forbids the uſe of the cold bath, whatever is to be effected by bracing the ſolids, invigorating the motion and accelerating the circulation of the blood, is with certainty to be had from the uſe of the cold bath. All diſeaſes ariſing from ſizy blood, and a lentor in the animal juices, if the elaſticity of the veſſels is not worn out with frequent debauches, &c. will find relief from the cold bath. Rheumatiſms of the moſt obſtinate kind, hypochondriacal affections, and debility from too tender, indolent, and inactive ways of life, and all nervous diſeaſes in general, are moſt happily

happily relieved by the cold bath. Whatſoever inconveniences likewiſe proceed from a bad tranſpiration, or when humours are thrown upon the ſurface, which cannot get through, but ulcerate, blotch, and deform the ſkin, are remedied by cold bathing; for upon immerſion, the whole nervous ſyſtem is ſo ſhocked, that the moſt minute veſſels are forced open by an increaſed velocity of the circulating fluids, whereby the ſkin will be cleared; and inſtead of entertaining groſs acrimonious humours, tranſmit only the imperceptible matter of perſpiration.

PRÆPARATA.

AQUÆ, &c.

L. E. AQUA ALEXETERIA SIMPLEX. *Simple Alexeterial Water.* D. ℥1 to 3.

Is obtained by diſtillation of ſpearmint leaves freſh ℔ 1 ſs, ſea wormwood tops freſh, angelica leaves freſh āā ℔ 1, with a ſufficient quantity of water to prevent burning, from which three gallons are diſtilled. The *Edinburgh* college directs this water to be diſtilled of elder flowers moderately dried ℔ 2, angelica leaves freſh ℔ 1, with a ſufficient quantity of water to prevent an empyreuma, from which three gallons are diſtilled. Theſe waters, particularly the firſt, are ſufficiently elegant, both in taſte and ſmell, but are not of themſelves of any conſiderable efficacy, and are only occaſionally uſed as vehicles for alexepharmic medicines, or in juleps to be drank after them, that coincide with the intention. If milk is uſed in diſtillation, in place of water, then it is called *Aqua Lactis Alexeteria*, *Alexeterial Milk Water.*

L. AQUA ALEXETERIA SPIRITUOSA. *Spirituous Alexeterial Water.* D. 3ii to ℥ſs.

Is diſtilled of ſpearmint leaves freſh ℔ ſs, angelica leaves freſh, ſea wormwood tops āā ℥4, proof ſpirit one gallon, with water to prevent burning, from which one gallon is diſtilled. This is a tolerably pleaſant water, and is reckoned alexepharmic and ſtomachic, and not unfrequently made uſe of in juleps, &c.

L. AQUA

L. Aqua Alexeteria Spirituosa cum Aceto. *Spirituous Alexeterial Water with Vinegar.* D. 33 to ℥1.

This water differs only from the former, in having ℔ 1 of vinegar added to each gallon of the diſtilled water. This water is given in room of *Aqua Theriacalis*, *Treacle Water*, of former pharmacopæias. *Spiritus Theriacalis camphoratus*, Spirit of treacle camphorated, is obtained by diſtillation of *Venice* treacle ℥5, myrrh ʒ10, ſaffron ℥ſs, camphor ʒ2, rectified ſpirit of wine ℥10. This is a moſt compendious medicine, and an extraordinary alexipharmic, but the college pays no regard to it. *Tinctura Theriacalis*, *Alexipharmic Tincture*, is made of *French* brandy, beſt vinegar āā ℔ 2, *Venice* treacle, mithridate āā ℔ ſs, digeſted in a gentle heat, and then ſtrained: it is both an opiate and excellent daphoretic.

E. Aqua Epidemica. *Plague Water.*

Is obtained by diſtillation of maſter-wort roots ℔ iſs, angelica ſeeds, elder flowers āā ℔ ſs, *French* brandy three gallons, digeſted for two days, and then two gallons and a half drawn off, to which are added of diſtilled vinegar ℔ 4. This is an agreeable water enough, and is of conſiderable uſe as a mild alexipharmic; it differs little, if any, from the preceeding water.

E. Aqua Melissæ. *Balm Water.* D. ℥ſs to 1.

Is diſtilled from balm leaves; is ſaid to be good in hypochondriacal and hyſterical caſes, in a chloroſis and palpitation of the heart; but I believe faith here aſſiſts more in the cure, than the balm water: whatever virtues are lodged in balm, may be much more perfectly and advantageouſly extracted by cold infuſion, in an aqueous or ſpirituous menſtruum; in this proceſs, the liquor ſuffers no injury on being returned on freſh parcels of the herb, and a few repetitions will load it with the vertues of the ſubject, and render it very rich. *Aqua Meliſſæ Compoſita*, *Compound Balm Water*, commonly called *Eau de Carmes*; is obtained of balm leaves freſh ℥4, lemon peal freſh ℥2, coriander ſeed, nutmegs āā ℥1, angelica root, cinnamon, cloves āā ℥ſs, powdered and digeſted for two days in ℔ 2 of proof ſpirit, and after digeſtion, ℔ 1 of balm water is added, and the whole diſtilled in B. M. almoſt to dryneſs. This is an excellent cordial in lowneſs of ſpirits, apoplexies, and gout in the ſtomach; and is undoubtedly a very elegant dram.

E. Oleum Camphoratum. *Oil of Camphor.* D. ℥ſs to 2.

Is made of camphor ℥1 diſſolved in twice the quantity of oil of almonds, or oil of linſeed. Some make an oil of camphor, by powdering and mixing it with twice its quantity of ſpirit of nitre, and then diſſolving it over a gentle fire; in a little time the camphor is turned to a clear oil, which ſwims above the ſpirit; others order camphor groſsly powdered, to be digeſted with four times its quantity of ætherial oil of turpentine, and then diſtil the oil of camphor, which is of a muddy, whitiſh colour, inclining to yellow, with a more fætid odour and taſte than the oil of turpentine. Both theſe laſt mentioned oils are deterſive, penetrating, and reſolving, both externally and internally; they will reach the ulcerations and foulneſs of the moſt remote and ſtraitened canals, as in the lungs and urinary paſſages: in arthritic pains, and thoſe ſettled by old colds, it is very efficacious taken in any proper liquor; the patient ſhould keep warm during the uſe of it. The doſe is from gut. 5 to 15.

E. Decoctum Serpentariæ Compositum. *Compound Decoction of Snake root.*

Is made of *Virginian* ſnake root ℥6 boiled in ℔2 of water till ℔1 remains, towards the end ℥ſs of *Edinburgh* treacle and ℈1 of cochineal are added, and the liquor ſtrained. This decoction is given as a ſuccedaneum to the compound tincture of ſnake root; it poſſeſſes nearly all the vertues of the root, and the opiate quality of the treacle; and is a medicine of conſiderable efficacy.

TINCTURÆ, &c.

L. E. Tinctura Serpentariæ. *Tincture of Snake Root.* D. ℥ſs to 1.

Is made of *Virginian* ſnake root ℥3, digeſted without heat in ℔2 m. of proof ſpirit, and then ſtrained. The *Edinburgh* college directs their tincture to be made of *Virginian* ſnake root ℥2, cochineal ℥1, digeſted in a gentle heat for three days, in ℔2 of plague water, and then ſtrained. Both tinctures poſſeſs the virtues of the root; the laſt is moſt pleaſant to ſight and taſte. They are powerful alexipharmics, and are often relied upon in malignant fevers, and in other caſes where a ſweat or diaphoreſis is to be promoted.

L. E.

L. E. TINCTURA CORTICIS PERUVIANI SIMPLEX. *Simple Tincture of Peruvian Bark.* D. 31 to ℥1.

Is made of *Peruvian* bark ℥4, digeſted in ℔2 m. of proof ſpirit, and then ſtrained. The *Edinburgh* college directs their tincture of the bark to be made of *Peruvian* bark powdered ℥3, *Virginian* ſnake root, gentian root āā 32, *French* brandy ℔2, macerated for three days in *French* brandy, and then filtrated. The ſubſtances which the *Edinburgh* college direct to be joined to the bark, in many caſes promote its efficacy in the cure of intermittents, and are ſometimes abſolutely neceſſary. In ſome ill habits, particularly where the juices are ſluggiſh and tenacious, and the viſcera and abdominal glands obſtructed, the bark by itſelf proves unſucceſsful, if not injurious, but when given in conjunction with corroborants, ſtomachics and deobſtruents, it rarely fails of the due effect: gentian and *Virginian* ſnake root are amongſt the beſt additions for theſe purpoſes, to which it is alſo needful often to join chalybeate medicines.

L. TINCTURA CORTICIS PERUVIANI VOLATILIS. *Volatile Tincture of the Bark.* D. gut. 30 to 60.

Is made of *Peruvian* bark ℥4, digeſted without heat in a cloſe veſſel with ℔2 m. of ſpirits of ſal ammoniac, and ſtrained for uſe. This tincture is but ſlightly impregnated with the virtues of the bark; and is ſo acrimonious, that the largeſt doſe of it, which can, with ſafety, be given, contains only a ſmall quantity of the bark: nevertheleſs it has its uſes, and may be ſerviceable, where the ſtronger preparations of the bark are improper, as in difficulty of breathing, obſtructions and oppreſſions of the breaſt; alſo at the cloſe of the cure of intermittents, in weakneſs of digeſtion, attended with a cold ſenſation at the ſtomach, in ſome fluxes, particularly thoſe of the uterus; where the circulation is languid, the fibres relaxed, and where there is a periodical return of a ſlight feveriſh complaint. Strong tinctures of this kind may be obtained by means of dulcified ſpirit of ſal ammoniac, or the ſpirit prepared with quick lime. This tincture may be given in any proper vehicle three or four times a day.

L. TINCTURA VALERIANÆ SIMPLEX. *Simple Tincture of Valerian.* D. ℥ſs to 1.

Is made of wild valerian root ℥4, digeſted with ℔2 m. of proof ſpirit, and then ſtrained. This tincture is conſiderably ſtrong of valerian; though it does

not anſwer ſo well in the cure of epilepſies, as the root in ſubſtance exhibited in form of powder or bolus

L. Tinctura Valerianæ Volatilis. *Volatile Tincture of Valerian.* D. gut. 30 to 33.

Is made of wild valerian root ℥4, digeſted without heat in ℔2 m. of volatile aromatic ſpirits. The volatile aromatic ſpirit is an excellent menſtruum, and at the ſame time greatly promotes the virtues of the valerian.

Tinctura Bezoartica. *Bezoartic Tincture.*

Is made of elicampane, angelica, zedoary, *Virginian* ſnake root āā ℥iſs, ſaffron ℥1, myrrh, cinnamon, dried citron peel āā 36, leaves of ſcordium and rue āā half an handful, *Venice* treacle ℥3, opium 32, digeſted for ſome days in a ſand heat, with ℥15 of rectified ſpirit of tartar, of the ſpirit of vitriol ℥3, of the rectified ſpirit of elder and juniper berries āā ℥18, to the ſtrained liquor are added, of ſalt of amber ℥1, camphor ʒij. *Le Nort* gives a preparation called *Elixir Bezoarticum*, *Bezoartic Elixir*, which differs very little from this. They are both admirable cordials, cephalics, and alexipharmics, and very convenient for exhibition in draughts or mixtures; they will perform all that can be expected or wiſhed for from cordials and cephalics; are good in all kinds of fevers and diſeaſes of the nerves, when a perſon is almoſt overcome with ſtruggling under a fever; and when the nerves are convulſed, they are very proper medicines; alſo in the beginning of acute diſtempers, with proper dilutors, they will promote a ſalutary ſweat. The doſe may be from 32 to ℥1. The college has not yet admitted it into their pharmacopæia.

L. Julepum e Camphora. *Julep of Camphor.* D. ℥ſs to 2.

Is made of camphor ʒ1, ground with a little rectified ſpirit of wine till ſoft, then ℥ſs of double refined ſugar, and ℔1 m. of boiling water are added. This julep taſtes ſtrong of camphor, and is a very good way of exhibiting camphor in a liquid form. *Elixir Camphoratum*, *Elixir of Camphor*, is made of camphor ℥ſs, diſſolved in tincture of ſaffron that has been made with rectified ſpirit of wine. This is a notable alexipharmic; good in hyſteric complaints, &c. and will do great good in many chronical caſes, if duly continued; the

the patient muſt keep warm during the uſe of it. The college does not take notice of it.

PULVERES.

L. E. Pulvis Contrayervæ Compositus. *Compound Powder of Contrayerva.*

Is made of the compound powder of crabs claws ℔ iſs, contrayerva roots ℥ß, mixed together. The *Edinburgh* college directs their powder to be made of contrayerva root 36, *Virginian* ſnake root 32, *Engliſh* ſaffron 31, compound powder of crab's claws ℥2, mixed together. Both theſe powders prove uſeful in low fevers, where the *vis vitæ* is weak, and where a diaphoreſis is to be promoted.

L. Species e Scordio sine Opio. *Species of Scordium without Opium.*

Is made of bole armoniac, or *French* bole ℥4, ſcordium ℥2, cinnamon ℥iſs, ſtorax ſtrained, tormentil root, biſtort root, gentian root, leaves of dittany of *Crete*, galbanum ſtrained, gum arabic, red roſes āā ℥1, long pepper, ginger āā ℥ſs, reduced into a powder.

L. Species e Scordio cum Opio. *Species of Scordium with opium.*

Is made of ſtrained opium pulverized ʒ3, mixed with the foregoing ingredients. The college has continued this powder, without lopping off any of its ſupernumerary ingredients; perhaps, at their next review, they will ſee reaſon either to lay it entirely aſide, or very much curtail it; *Pulvis e bolo cum & ſine opio*, is an elegant reform of this ſpecies.

FORMULÆ EXTEMPORANEÆ.

℞ Camphor ℈1, amygdal. dulc. N° 4 gum. arab. ʒ1, diu trito adde aq. alexeter. ſimpl. ℥6, ſyr. e mecon. ʒ3, f. emulſio.

℞ Pulv. rad. contrayerv. ℈1, aq. menth. vulg. ſimpl. ℥2, ſyr. diacod. ℥1, f. hauſtus.

℞ Ipecacoan. gr. 2, aq. alexeter. ſimpl. ℥iſs, f. hauſtus.

℞ Tartar. emetic. gr. 1, aq. alexet. ſimpl. ℥iſs — ſpt ℥ſs, ſyr. e mecon. ℥ſs, m. f. hauſtus.

℞ Sal.

℞ Sal. C. C. ℈1, aq. menth. vulg. ℥2, ſyr. e mecon. ℥ſs, f. hauſtus.

℞ Gum. guaiac. (in vitell. ov. q. ſ. ſolut.) gr. 18, aq. alexeter. ſimpl. ℥1 — ſpt. 32, ſpt. minderer. 36, ſacchar. alb. 31, m. f. hauſt. h. ſ. ſumend.

℞ Tinct. guaiac. vol. 31, aq. alexeter. ſimpl. ℥iſs, ſyr. croc. 31, f. hauſtus.

℞ Pul. cort. peruvian. ℥iſs, coq. in aq. ℔3 ad ℔1 ad finem adde helleb. nig. ℥1, vin. alb. ℥4 m.

℞ Sarſapariil. rad. ℥3, aq. pur. ℔6, coque leni igne ad ℔4, cola doſ. ℥8, quater in die.

℞ Acet. mellis āā ℥1, macis q. ſ. diluantur in aquæ ℥12 vel 14, ſumat æger inſtar theæ & in lecto ſudorem expectat.

℞ Mezereon. rad. pulv. ℥3, aq. fontan. ℔4, coque leni igne ad ℔3ſs, cola doſ. ℥8, ter quaterve in die.

℞ Aq. alexeter. ſimpl. ℥4, ſpt. minderer. ℥2, ſal. C. C. gr. 10, ſacchar. alb. 36, m. doſ. cochl. 2 quarta quaque hora.

℞ Seri lact. vinoſ. ℥10, ſpt. C. C. gut. 30, f. hauſt.

℞ Gum. guaiac. (in vitell. ov. q. ſ. ſolut.) ℈1, aq. menth. vulg. ſimpl. ℥2, ſal. C. C. gr. 5, ſyr. croc. 31, f. hauſtus.

℞ Aq. alexeter. ſimpl. ℥4, acet. theriac. phar. ed. ℥2, tinct. croc. ℥ſs, ſpt. ſuccin. 31, ſacchar. alb. ℥1 m. doſ. cochl. 2, tertia vel quarta quoque hora.

℞ Rad. ſerpent. virg. pulv. ℈1, ſal. C. C. gr. 8, aq. epidem. — com. āā ℥i, ſyr. ſimpl. ℥ij, m. f. hauſt.

℞ Moſch. (ſacchar. alb. trit.) 31, aq. cinnamom. ſimpl. ℥6, f. julep. doſ. cochl. 2.

℞ Aq. commun. ℥4 — alexeter. ſpt. ℥2, ſyr. caryophyl. rub. 32 m.

℞ Aq. alexeter. ſimpl. ℥6 — ſpt. cum acet. julep. e camphor. āā ℥iſs, pulv. contrayerv. comp. ℈4, nitr. ℈2, ſyr. e cort. aurant. 36 m. doſ. cochl. 3 vel 4 quinta, vel ſexta, quaque hora.

℞ Aq. epidem. ℥3 — alexeter. ſpt. ℥ſs — com. ℥3, ſyr. papav. errat. ℥ſs m.

℞ Aq. alexeter. ſimpl. ℥6 — ſpt. ℥2, ſyr. e ſucc. limon. ℥1 M.

℞ Camphor. ℥iſs, ſacchar. alb. ℥5, acet. ℔1, m.

℞ Aq. menth. vulg. ſimpl. ℥4, tinct. croc. 31, ſpt. ſal. ammoniac. ℥ſs ſacchar. ℥3, m. doſ. cochl. 2.

℞ Vin. rhen. ℥6, aq. fœnicul. ℥3, ſyr. papav. errat. 36 m.

℞ Aq. alexeter. ſimpl. ℥8, acet. ℥i, ſpt. nitr. dulc. gut. 50, ſyr. papav. errat. 36 m.

℞ Aq. epidem ℥i — com. ℥2, theriac. androm. ℈iſs, ſyr. papav. errat. 32 M.

℞ Aq. alexeter. ſimpl. ℥2 — ſpt. ℥ſs, theriac. londin. 31, ſyr. papav. errat. 32 m.

℞ Rad.

℞ Rad. valerian. ſylv. ℥1, ſerpent. virginian. 36, fol. ror. marin. ℥iſs, aq. bull. cong. ſum. æger in lecto inſtar theæ & corpus ad ſudorem deponat.

℞ Rad. ſerpen. virgin. contuſ. pulv. cort. peruvian. āā 33, aq. fontan. ℔ 1, coque ad dimidium, dein cola; adde aq. cinnam. ſpt. ℥iſs, ſyr. caryophyl. 32, doſ. cochl. 1, ſingulis horis.

℞ Cort. peruvian. pulv. 33, coque ex aq. fontan. ℥16, ad dimidium, ſub finem coctionis adjiciatur rad. ſerpentar. virg. contuſ. ʒiſs, macera per horam unam & cola; deinde adde aq. alexeter. ſpt. cum aceto ℥2, ſacchar. alb. ℥ſs m. doſ. cochl. 1, ſingulis vel alternis horis.

℞ Aq. menth. piper. ſimpl. ℥12, pulv. rad. valerian. ſylv. ℥1, ſpt. lavend. comp. 32, ſpt. minderer. ℥4, ſyr. e cort. aurant. ℥iſs, m.

℞ Vin. antimonial. gut. 50, aq. cinnamom. ſimpl. ℥iſs, ſyr. e mecon ℥ſs, f. hauſtus.

℞ Spt. minderer. ſyr. e mecon. āā ℥ſs, ſal. C. C. gr. 5, aq. pur. ℥ſs, m. f. hauſtus.

℞ Pulv. ſerpentar. virgin. 36, coque in aq. fontan. ℔ 2 ad ℔ 1, ſub finem adde coccinell. gr. 10, colaturæ adde theriac. androm. 34, mellis ℥1, doſ. cochl. 2 vel 3, ſingulis horis.

℞ Pulv. cort. peruvian. ℥2, aq. fontan. ℔ 2, coq. ad ℥12, colat. adde ℔ 3, iterum coque ad ℥14, ſub finem adde balſam. Tolutan. 33, coccinell. ℈1, frigide cola; & adde ſyr. balſam ℥4, D. ℥3.

℞ Cort. peruvian. pulv. ℥2, aq. fontan. ℔ 4, coq. ad dimidium, ſub finem adde cort. winter. ℥1, colaturæ adde tinct. cort. peruv. volatil. ℥iſs, doſ. ℥3, tertia quaque hora.

℞ Cort. peruvian. pulv. ℥2, coque in aq. fontan. ℔ 3 ad 2, colaturæ adde ſpt. vin. tenuior. ℥3, doſ. cochl. 4, ter quaterve in die.

℞ Contrayerv. rad. ſerpent. virginian. āā 32, coccinell. ℈1, infunde in aq. bullient q. ſ. cola ℥12, cui adde aq. piper. jamaicenſ. ℥4, doſ. cochl. 4, ſexta quaque hora vel ſæpius.

℞ Pulv. cort. peruvian. ℥2, ſyr. ſimp. ℥6, m.

℞ Pulv. cort. peruvian. 32, ſal. ammoniac. gr. 3. ſyr. ſimpl. q. ſ. f. bolus repet. ſexta quaque hora.

℞ Pulv. cort. peruvian. 32, ſal. mart. gr. 3, ſyr. ſimpl. q. ſ. f. bolus repet. ſexta quaque hora.

℞ Pulv. e chel. ♋ comp. ℥3ſs, pulv. contrayerv. comp. ℥1, m. f. pulv. doſ. 3ſs, ſexta quaque hora.

℞ Gum. guaiac. conſerv. flav. cort. aurant. āā gr. 15, ſyr. ſimpl. q. ſ. f. bolus.

℞ Gum.

℞ Gum. guaiac. gr. 10, mithridat. ʒ2, syr. simpl. q. s. f. bolus.

℞ Tartar. emetic. gr. 2, magnes. alb. ʒss, quam optime terentur ut f. pulv. subtiliss. D. gr. 4 ad 16.

℞ Tartar. emetic. gr. 1, camphor. gr. 5, elect. e scordio ʒi f. bolus.

℞ Tartar. emetic. gr. 1, conserv. rosar. ʒi f. bolus.

℞ Sal. C. C. gr. 15, conserv. rosar. q. s. f. bolus.

℞ Ipecacoan. gr. 3, conserv. rosar. ʒi f. bolus.

℞ Gum. guaiac. conserv. rosar. āā ʒi f. bolus.

℞ Gum. guaiac. sapon. dur. āā ʒi, f. pilulæ dos. ʒss.

℞ Contrayerv. pulv. ʒss, syr. croci q. s. f. bolus.

℞ Camphor. ʒ2, amygdal. dulc. excort. ℥ss, f. pil. dos. ʒi ad ʒss.

℞ Camphor. gr. 8, gum. arab. ʒi, syr. zingib. q. s. f. bolus.

℞ Conserv. fol. rutæ ℥2, theriac. andromac. ℥ss, camphor. ʒi, syr. papav. errat. q. s. f. elect.

℞ Pulv. contrayerv. comp. ʒ4, nitr. pur. ʒ2, camphor. gr. 12, m. f. pulv. divid. in dos. 4, quarum una detur sexta quaque hora.

℞ Rad. serpent. ʒi, camphor. sal. succin. āā ʒiss, confect. japonic. q. s. f. pil.

℞ Pulv. contrayerv. ʒiss, croc. ʒi, coccinell. gr. 10, sal. succin. castor āā gr. 6, confect. paulin. q. s. f. pil.

℞ Antimon. diaphoretic. ʒi, croci camphor. castor. sal. succin. āā gr. 10, mithridat. q. s. f. pil.

℞ Pulv. scord. ʒi, serpent. virginian croc. āā ʒi, theriac. androm. q. s. f. pil.

℞ Rad. serpent. virgin. contrayerv. āā ʒi, syr. croc. q. s. f. pil.

℞ Mosch. flor. benzoin. āā ʒi, camphor. gr. 12, balsam. peruvian. q. s. f. pil.

℞ Myrrh. ʒss, sapon. venet. ʒss, terebinth. ʒi, m. f. pil.

℞ Contrayerv. gr. 10, serpent. virgin. croci āā gr. 5, m. f. pulv.

℞ Serpent. virgin. gr. 10, nitri gr. 6, camphor. gr. 3, m. f. pulv.

℞ Rad. contrayerv. angelic. āā gr. 6, myrrh. croc. āā gr. 5, m. f. pulv.

℞ Cort. peruvian. ℥i, pulv. serpent. virginian. ʒi, mithridat. ʒ2, syrup. papav. errat. q. s. f. elect.

℞ Pulv. cort. peruvian. ℥i, mithridat. ʒ2, camphor. ʒiss, ol. amygdal. dul. syr. caryophyl. rub. q. s. ut f. elect.

℞ Pulv. cort. peruvian. ʒ6, ol. e rad. sassaf. essent. gut. 6, spt. sulphuris per campanam gut. 20, syr. fruct. rub. idæi q. s. f. elect.

℞ Pulv. cort. peruvian. ʒ6, mart. cum sulphur. præp. ʒ2, pulv. croci ʒiss, tinct. mart. in spt. sal. ʒij, syr. simpl. q. s. f. elect.

℞ Pulv.

℞ Pulv. cort. peruvian. 36, æthiop. mineral. 32, ſyr. papav. errat. q. ſ. f. elect.

℞ Confect. alkerm. 36, zingib. cond. 36, rad. contrayerv. ſerpent. virginian. āā 31, ſyr. e cort. aurant. q. ſ. ut f. elect.

℞ Extract. cort. peruvian. dur. ℥1 — lign. campechenſ. — glycyrrhiz. āā 34, mucilag. ſem. cydonior. q. ſ. ut f. elect.

℞ Cort. peruvian. ℥3, eleuther. ℥ſs, ſyr. e cort. aurant. q. ſ. ut f. elect.

℞ Cort. peruvian. ℥3, ſal. ammon. 33, ſyr. e ſucc. limon. q. ſ. f. elect.

℞ Cort. peruvian ℥3, colcoth. vitriol. 36, ſyr. ſimpl. q. ſ. f. elect.

℞ Cort. peruvian. ℥3, alum. ℥1, ſyr. e ſucc. limon. q. ſ. f. elect.

℞ Rad. contrayerv. ℈1, croc. gr. 5, ſal. prunel gr. 10, ſyr. ex alth. q. ſ. f. bolus.

℞ Ovor. teſt. præp. ℈iſs, camphor. croc. caſtor. āā gr. 5, confect. alkerm. q. ſ. f. bolus.

℞ Moſch. ſal. C. C. āā gr. 10, rad. ſerpentar. virgin. gr. 15, confect. alkerm. q. ſ. f. bolus.

℞ Croc. caſtor. ſal. C. C. āā gr. 5, mithridat. ℈iſs, ſyr. papav. errat. q. ſ. f. bolus.

℞ Rad. ſerpentar. virgin. gr. 15, caſtor. gr. 10, camphor. gr. 8, nitr. gr. 15, ſyr. roſar. rub. q. ſ. f. bolus.

Antiphlogistica.

℞ Aq. tepid. ℔2, aurant. hiſpal. ſucc. ℥1, ſyr. e cort. aurant. ℥iſs, pro potu uſitat.

℞ Sal. tartar. ℈1, ſucc. limon. ℥ſs, aq. menth. vulg. ſimpl. ℥iſs, ſyr. croc. 31, f. hauſtus.

℞ Sal. abſinth. ℈1, ſucc. limon. ℥ſs, aq. pur. ℥iſs, aq. cinnamom. ſpt. ſyr. croc. āā 31, f. hauſtus.

℞ Sal. tartar. ℥iſs, ſucc. limon. ℥18, aq. alexeter. ſpt. ℔ſs, aq. fontan. ℔2, ſacchar. alb. ℥3 m. doſ. cochl. 3 ter vel quater in die.

℞ C. C. C. ℥6, gum. arab. ℥1, coq. in aq. fontan. q. ſ. cola cong. 1, nitr. cui adde ℥1, pro potu commun.

℞ Sal. abſinth. 32, ſucc. limon. ℥3, aq. alexeter. ſimpl. ℥4 — ſpt. ℥2, ſyr. ſimpl. ℥ſs m. D. cochl. 3, ſexta quaque hora.

℞ Sal. abſinth. ℈iſs, ſpt. vitriol. gut. 30, aq. menth. vulg. ſimpl. ℥iſs, aq. epidemic. 32, ſyr. ſimpl. 31 m.

℞ Sal. abſinth. ℈iſs, ſpt. vitriol. gut. 30, aq. menth, vul. ſimpl. ℥iſs, aq. alexeter. ſpt. 33, oxymel. ſcillitic. 32, m. f. hauſt.

℞ Nitri ſacchar. alb. āā p. æ. pulv. doſ. ℈1.

℞ Aq. hordeat. ℔2, nitri ʒ1, oxymel. ſimpl. ℥1, pro potu uſitat.

℞ Aq. alexeter. ſimpl. ℥8, nitri ʒ2, ſyr. caryophyl. rub. ℥1, m. f. julep. doſ. ℥1.

℞ Aq. hordeat. ℔2, tamarind. ℥1, tartar. vitriol. ʒ1, ſyr. e cort. aurant. ad guſtum pro potu aſſiduo.

℞ Aq. bullient. ℔2, gelat. ribiſior. ℥1, pro potu aſſiduo.

℞ Sal. abſinth. ℈iſs, ſpt. vitriol. gut. 30, aq. alexter. ſimpl. ℥iſs — ſpt. ʒ3, pulv. valerian. ℈1, ſyr. ſimpl. ʒ1 m.

℞ Aq. menth. vulg. ſimpl. ℥6, ſpt. nitr. dulc. ʒ2, ſyr. violar. ʒ3, f. julep. doſ. ℥1.

℞ Aq. alexeter. ſimpl. ℥6, ſyr. e ſucc. limon. ʒ3, f. julep.

℞ Aq. meliſſ. ℥5 — aq. epidem. ℥2, ſyr. e ſucc. limon. ℥1, m. f. julep.

℞ Vin. rhen. aq. roſar. damaſcen. āā ℥2, aq. camphorat. ℥ſs, ſyr. e ſucc. limon. ℥1 m.

℞ Pulv. fol. abſinth. ℥ſs, ſal. tartar. ℈2, aq. juniper. comp. ℥2—cinnam. ſimpl. ℥3, divid. in doſ. 3, pro die uno.

℞ Aq. hord. ℥12, acet. ℥1, mel. roſac. ℥2, m. pro potu aſſiduo.

℞ Lact. vaccin. aq. font. āā ℔1, coq. ad ebull. & adde aceti cochl. 2, f. ſerum pro potu.

℞ Crem. tartar. ʒ3, nitri ʒ2, contere in pulv. doſ. ʒſs.

℞ Flor. chamæmel. ℥2, coccinell. ℈1, coq. in aq. ℔3 ad ℔2; cola & adde ſal. abſinth. ʒ2, doſ. ℥4, bis vel ter in die.

℞ Sal. tartar. ℥3, flor. pavav. baccar. junip. rad. hellebor. nig. āā ℥8, aq. calc. ℔12, coque, deinde cola pro uſu.

℞ Aq. bullient. ℥26, ſucc. limon. ſacchar. puriſſ. āā ℥2, coccinell. ℈1, coque pauliſper, dein adde aq. roſar. damaſ. ℥4.

℞ Conſerv. fol. lujul ℥4, trem. tartar. ʒ6, tartar. vitriol. ʒ2, ſyr. e ſucc. limon. q. ſ. f. elect.

℞ Conſerv. ſummit. abſinth. marit. ʒſs, crem. tartar. tartar. vitriol. āā. ℈ſs, ſal. mart. gr. 5, ſyr. ſimpl. q. ſ. f. bolus.

Antiseptica.

℞ Chamæmel. flor. ʒſs, alum. myrrh. āā gr. 5, ſyr. ſimpl. q. ſ. f. bolus.

℞ Rad. gentian. ℥ſs, cor. aurant. cond. ʒ2, zedoar. ʒ1, infunde in aq. bull. q. ſ. ut calatura ſit ℥12, cui adde aq. cort. aurant. ſpt. ʒ6, ſal. abſinth. ʒ2ſs.

℞ Conſerv. ſummitat. abſinth. marit. ℥1, cort. winter. ℥ſs, ſyr. zingib. q. ſ. f. elect.

℞ Flor.

℞ Flor. chamæmel. pulv. ʒ3, myrrh. alum. āā ʒ1, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Camphor. gr. 10, gum. arab. ϑ1, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Camphor. ϑ1, gum. arab. ʒ1, tritis ſimul adde aq. cinnam. ſimpl. ℥6, ſyr. e cort. aurant. ℥ſs, f. emulſio.

℞ Contrayerv. rad. pulv. ʒſs, aq. cinnam. ſimpl. ℥2 — ſpt. ſyr. e cort. aurant. āā ʒ1, f. hauſtus.

℞ Chamæmel. flor. pulv. ϑ1, aq. menth vulg. ſimpl. ℥2, ſyr. e ſucc. limon. ʒ2, f. hauſtus.

℞ Camphor. ʒſs, amygdal. N° 6. contere, & adde aq. menth. vulg. ſimpl. ℥6, nitri ʒiſs, ſacchar. alb. ℥ſs, f. hauſtus.

℞ Cort. peruvian. pulv. ʒſs, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Cort. peruvian. pulv. ϑ1, aq. cinnam. ſimpl. — ſpt. āā ℥1, ſyr. e ſucc. limon. ʒ2, f. hauſtus.

℞ Cort. peruvian. ℥1, coq. in aq. fontan. ℔3, ad dimidium, colaturæ adde ſpt. vitriol. ten. gut. 50, doſ. ℥2.

℞ Conſerv. fol. cochl. hort. ℥5, tartar. vitriol. ʒ1, vin. rhen. q. ſ. f. elect.

℞ Conſerv. fol. lujulæ ℥4, cort. peruvian. pulv. ℥1, vin. canar. q. ſ. f. elect.

℞ Extract. cort. peruvian. ʒ5, aq. menth. vulg. ſimpl. ℥6 — nuc. moſch. ℥ſs, ſyr. e mecon. ℥1, f. julep.

℞ Ser. lact. vin. ℔2, ſpt. vitriol. ten. ℥ſs, ſyr. e mecon. ℥iſs, doſ. ℥4, omni hora.

℞ Ser. lact. vin. ℔1, tamarind. ℥1, parum coque, & cola pro potu uſitato.

SECTION VIII.

CHAP. I.

Of EMETICS.

WHAT comes under this head, though not ſo extenſive as ſome of the precedent diviſions, is of ſuch efficacy, as to require great ſkill and caution in the management; for a vomit cannot be given without either doing good or hurt, and is not therefore indifferently to be regarded.

By emetics we underſtand all thoſe medicines, by the power of which the contents of the ſtomach are thrown upwards, through the gullet into the mouth. The immediate cauſe of vomiting is the compreſſion of the ſtomach upon its contents, ariſing either from the contraction of the fibres of the ſtomach itſelf, or from an external cauſe ſtrongly preſſing the ſides of the ſtomach, or, laſtly, from both together.

Hence, therefore, there are three ſorts of vomiting; the firſt is a violent evacuation of the ſtomach by the upper parts, produced by a contraction of the fibres of the ſtomach itſelf, which requires that the matter to be expelled be fit for expulſion, that the upper orifice of the ſtomach be open, that there be a cloſe ſtricture of the pylorus, a diſtention of the ſtomach, and a contraction ſucceeding it, which depends on the fibres of the ſtomach acting together; as we ſee in bending the body when the ſtomach is full, there will preſently ariſe ſome eructations, if not an ejection of its contents occaſioned, by the opening of the upper orifice of the ſtomach, and not from any convulſion of the diaphragm and abdominal muſcles.

Vomiting is cauſed by any topical acrid, applied to the ſtomach, which irritates its fibres, ſo as to make them contract or draw up with force, or which ſo far vellicates the membranes and coats of the ſtomach as to draw them into convulſive

vulſive twitches and ſpaſms, or accelerates their natural motions: and as the upper orifice of the ſtomach is much larger than the pylorus, ſo the contents are thrown upwards, and do not get through the pylorus and paſs by ſtool. The difference, therefore, between an emetic and cathartic, lies in this, that the latter conſiſts of ſuch particles as paſs the ſtomach without any violent vellications of the fibres; and the former, of ſuch as have that effect, almoſt as ſoon as they come there: ſo that a vomit ſeems ſtronger than a cathartic, and this is the reaſon why a cathartic in an increaſed doſe proves emetic.

Any inflammation of the ſtomach provokes vomiting; though the ſtomach, in a ſtate of reſt, or while it is flaccid, is not moved to vomit by the inflammation, but only when ſomething is taken in. A ſchirrus in the ſtomach, or too great and ſudden repletion from any ſubſtance, an inordinate motion of the animal ſpirits, and every thing that diſturbs them, though it does not act immediately on the ſtomach, as a nauſeous idea, the paſſions of the mind; and hypochondriacal and hyſterical ſpaſms uſually excite vomiting; alſo a ſpaſm of the ſtomach, from an unuſual motion of the body, as ſailing, turning round, riding in a coach, &c. or a ſympathetical ſpaſm of the ſtomach, as in wounds in the head, apoplexies occaſioned by extravaſated liquid, cholic, nephritis, &c. which ſpaſm ariſes from a communication of the nerves of the ſtomach with the nerves of the affected parts, provoke vomiting: whence alſo it comes to paſs that vomitings accompany almoſt all diſeaſes of the abdomen.

Vomiting alſo happens from the compreſſion of the ſides of the ſtomach by the muſcles of the abdomen, which are ſometimes ſo drawn together, that all the bowels, contained in the abdomen, are ſtrongly preſſed, and if at the ſame time the upper orifice of the ſtomach is open, a vomiting neceſſarily enſues. In this ſort of vomiting the cavity of the abdomen is greatly ſtraitened by its proper muſcles, the diaphragm and peritoneum acting together; whence the blood is much compreſſed in the whole abdomen; and hence the ſecretions are chiefly made in all its contained bowels; nay, ſometimes the blood veſſels in the liver burſt aſunder, and dreadful ſymptoms ariſe; the blood, being driven violently towards the upper parts, by the compreſſion or reſiſtance it meets with in the lower belly, ſometimes produces an hæmoptiſis, and ſometimes an apoplexy. Beſides, in this compreſſion of the abdomen, if the force of the ſphincter of the anus is ſo great as to be inſuperable, the periſtaltic motion of the inteſtines is inverted, and thence an iliac paſſion ariſes; but if that force is overcome, then an

an excretion is made at the ſame time downwards, in which not only the contents of the inteſtines are excluded, but alſo the liquors which are ſecreted, and flow from all the bowels of the abdomen; but this ſort of vomiting uſually follows the firſt ſort, being too violent, or continued too long, for the nerves of the ſtomach being vellicated, at laſt the muſcles of the abdomen are alſo drawn together, by the conſent of the nerve of the eighth pair. If a contraction of the fibres of the ſtomach, and of the muſcles of the abdomen happen at the ſame time, the vomiting is very violent.

All bodies that enter the ſtomach in ſuch a quantity, as to fill it too much, and diſtend all its fibres, and put thoſe of the back into motion, by which the pylorus is conſtringed, cauſe a nauſea and vomiting. Thus water, or any other fluid drank quickly and copiouſly, nay, any ſort of meat, by this means becomes an emetic; alſo all bodies which relax and lubricate the fauces, gullet, ſtomach, or inteſtines, occaſion the ſtomach to throw up its contents with little motion, as fats and oils, butter, ſoap, cream, &c. Whatever, by a mechanical application, irritates the fauces, drives the ſtomach and neighbouring parts into contractions; for the fauces, lungs, heart, intercoſtal muſcles, ſtomach, diaphragm, and meſentery, have nerves from the ſame origin. Thus, if with your finger, or by preſſing down the tongue, you irritate or compreſs the nerves of the fauces, all the parts that are ſupplied with nerves from the ſame origin will be eaſily convulſed, and a nauſea preſently excited, and, if continued, a vomiting ſucceeds.

Whatever acts topically on the ſtomach itſelf, by irritating it immediately, or very ſoon after it is ſwallowed, as verdegris, D. gr. ſs to 2, oxymel of ſquills, D. ℥1 to 4, juice of horſe-radiſh recently expreſſed, ℥1 to 2, &c. Theſe all act in the ſame manner upon the ſtomach, as a feather does on the fauces by irritating and vellicating. The uſe of theſe agrees with thoſe who eaſily vomit, have a pretty ſenſible ſtomach, and are apt to nauſeate from repletion; as alſo in acute and chronical caſes. There are other medicines, which being communicated to the blood, bring on univerſal ſpaſms, but chiefly exert themſelves in the ſtomach and inteſtines. Now the medicines of this kind ſtay an hour or more in the blood before they operate, and theſe perhaps firſt affect the brain, and then diſturb the ſtomach by conſent, as white and black hellebore, the leaves of aſarabacca, &c. all which may be ſo mitigated and enervated by acids as to have no force remaining in them. Mercurials, as turbith mineral,

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all antimonials, eſpecially emetic tartar, which is the ſafeſt of all theſe, being digeſted with oil of vitriol, loſe their power: if theſe violent emetics are injected into the venal blood they are venomous and mortal.

In vomiting, all the excretions, as ſweats, ſtools, tears, ſpittle, &c. are promoted. The action of vomiting gives a ſtrong ſhake to all the muſcles of the body; and the effects ariſing therefrom are not confined to the ſtomach: but the violent concuſſion and emotion of the muſcles prepare obſtructed matter, in the remoteſt parts, for ſeperation; and force it through other outlets. By theſe means the diſcharge by the ſkin is prodigiouſly increaſed, as is evident from the profuſe ſweat, which a perſon naturally falls into, upon the leaſt encouragement, after vomiting. The antimonial emetics are preferable to all others, and in all caſes they may be ſo managed as to act mildly or roughly.

The matter that is thrown out by emetics is manifold, as plenty of ſpittle, the mucus of the noſtrils; whence ariſe the wonderful effects of emetics, in thoſe affected by a moſt foul mucus from the venereal diſeaſe. The liquor of the fauces and gullet are ejected by vomits, therefore emetics are the beſt medicines to deterge the ſuppurations of thoſe parts. The gaſtric liquor, the liquor of the ſpleen, are pumped up; therefore if the ſpleen is filled with any viſcid matter, emetics are of great ſervice in the beginning of the diſorder whilſt the matter is moveable. If the oily liquor of the œmentum, collected to temperate the bile and other liquors, which acquire acrimony from too great a motion of the body, abounds too much and renders the bile too tenacious, it may be eaſily drawn out by an emetic. The liquor of the meſentery and the hepatic liquor are acted upon by a vomit; for there is no medicine that acts more certainly upon the liver than an emetic: the pancreatic liquor, and the matter of the inteſtines heaped together from the ſaid liquids, are all drawn out by emetics. There is no remedy, except the paracentheſis, or tapping, better in a curable aſcites; for nothing more readily evacuates what is extravaſated in the abdomen; nor is there any thing better to break impoſthumes of the lungs, pleura, mediaſtinum, diaphragm, liver, and abdominal bowels, if they are ripe, as alſo in removing obſtructions of the whole body, eſpecially if they are in the lower belly, in diſſolving what is impacted and ſtagnating, alſo in increaſing the expelling force. Therefore emetics are of ſervice in innumerable diſeaſes, both acute and chronical. Thoſe who have any leſs moveable matter ſtopping in any part, or hidden in the inmoſt receſſes of the bowels, before they vomit,

vomit, ſhould take ſuch medicines as are inciding, lubricating, relaxing, and irritating, and this being well obſerved, an innumerable number of diſeaſes may be cured. When the contents of the ſtomach are expreſſed by the firſt or ſecond act of vomiting, it is neceſſary to give diluting, lubricating, and relaxing medicines, otherways great pain and anxiety are excited.

A *ſuper-purgation* is always carefully to be avoided, for it does not ariſe from any medicines more eaſily than from emetics; but if at any time it follows upon them, it may be ſtopped by antiſpaſmodic remedies, namely, thoſe that are diluting, relaxing, and anodyne, which give a ſtop to the impetus and deaden the ſenſation, as drinking warm water, the juice of liquorice, opium, binding the arms and legs, various aromatics, ſuch as alexipharmic confections, viz. diaſcordium, theriaca, mithridate, &c. which determine the motion of the humours from the center to the circumference; for by means of an emetic the veſſels of the circumference are conſtringed, whence the liquids are compelled to be moved towards the center. If the ſuper-purgation ariſes from the veſſels being relaxed, and the ſtomach flaccid, then auſtere medicines and acids are required, ſuch as marmalade of quinces, tormentil, or biſtort root, *Peruvian* bark, oranges, and a pretty large doſe of fermented ſpirits, &c.

Frequent and difficult vomiting relaxes the tone of the ſtomach, weakens the viſcera, and offends the head. Vomiting does not agree, and is very dangerous to thoſe that vomit with great difficulty, thoſe who have ſmall and narrow cheſts, phthiſical and conſumptive perſons, to thoſe that have violent head-achs, or are troubled with the ſtone and gravel, or concretions of the bile; for bloody urine may be occaſioned by too much friction and attrition, either of the kidnies, the bladder, or the liver againſt the ſtone, whence all the neighbouring veſſels are injured; alſo to all who have a ſchirrous cancer, corrupted viſcera, or contraindicating inflammation; to all that labour under a hæmoptöical diatheſis, and to all plethoric perſons; for ſometimes an emetic produces an hæmoptoë or apoplexy: in ſuch therefore, in plethoric and acute diſeaſes, bleeding ought always to be premiſed as often as an emetic is given. But as we have not explained the nature of bleeding, we ſhall here take this opportunity of ſpeaking a few words upon it.

Venæſection diminiſhes the quantity of blood, whereby the over diſtended veſſels contract themſelves more eaſily and freely, and if the blood was hot and thin,

thin, it confines it within the proper limits of circulation, by which means, we guard againſt too great an afflux, or inflammation in any part, and by evacuating part of the maſs of blood, the veins are proportionably emptied, and ſo the extravaſated blood, as in the quinſy, pleuriſy, and other inflammations, not yet congealed, or at leaſt diſſolved by medicines, returns more eaſily into the veins; but care muſt be taken that a vein is not opened too raſhly in the plague, ſmall pox, petechial, and other malignant fevers, leſt the malignity ſhould creep into the emptied veins, and be drawn inwards from the outward parts: in this caſe, by leſſening the blood, you leſſen the quantity of ſpirits, the conſequence of which is, the heart and arteries will not contract themſelves ſo often, and ſo ſtrongly as before; therefore what nature before intended to be thrown out by the pores of the ſkin, will be again abſorbed in the circulation, and frequently fix itſelf on ſome vital part.

A vein muſt not be opened in the achme or height of the fever, where the ſtrength muſt not be leſſened, nor in the cold fit of intermittent fevers. Old men and children do not ſo well bear bleeding, becauſe they want nouriſhment, and having loſt their heat and blood, if good, do not eaſily regain it: but ſometimes in quinſies, pleuriſies, &c. they loſe blood with ſucceſs; we may take more blood from a fleſhy than a fat perſon, and you may take pretty largely from a lean perſon, provided his leanneſs does not proceed from a parſimonious way of life, or from labour, &c. for ſuch bodies have moſt blood. Upon a moderate evacuation of the blood by venæſection, during the time of bleeding, the blood flows with more celerity into the correſpondent artery, and alſo afterwards; for having a freer paſſage it is better diſperſed over all the body. So that in this ſenſe bleeding promotes the motion from the center to the circumference, and alſo from the circumference to the center; for this reaſon, becauſe by emptying thoſe veſſels which lie on the external parts of the body, the refluent blood is more readily brought back to the heart. Bleeding both cools and heats the body in different caſes; it is cooling in fevers, where by accelerating the motion of the blood in the vein and artery, it's particles ceaſe to be agitated amongſt themſelves ſo ſwiftly and confuſedly, in which ſwift and confuſed motion the febrile heat chiefly conſiſts, and by which the parts of the blood are principally affected: venæſection heats in a plethora, where the heat of the heart is ſuppreſſed by too great a quantity of blood, or at leaſt the blood, by its ſlower paſſage through the heart, is not ſo eaſily rarified and agitated.

SIMPLICIA.

FOLIA.

ERIGERUM. *Groundſell.*

The juice or infuſion of it in ale, is a mild and ſafe emetic, but muſt be taken in very large quantities.

PERSICA MALUS. *Peach Tree.*

Peach flowers have an agreeable ſmell, and bitter taſte; an infuſion of ℥ſs of the freſh gathered flowers, or 3i of them when dried, in water, and ſweetened with ſugar, proves for children a laxative and anthelminthic; the leaves are in this intention ſomewhat more efficacious, but leſs agreeable; the fruit is dulco-acid, abates heat, quenches thirſt, and gently looſens the belly.

RADICES.

SCILLA. *Squills.* D. dried gr. 3 to 5. freſh gr. 5 to ℥ſs.

The root is brought from *Spain* and the *Levant*, there is a red and a white kind: it has a very nauſeous taſte, intenſely bitter and acrimonious, powerfully ſtimulates the ſolids, and attenuates viſcid juices, promotes expectoration, urine, and ſweat. If the doſe is conſiderable it proves emetic, and ſometimes cathartic, does great good where the *primæ viæ* abound with mucous matter, and the lungs are oppreſſed by tenacious phlegm; given in doſes of gr. 10 or 12, mixed with a double quantity of nitre, in hypochondriacal ſwellings, and in the nephritis, managed this way, it always acts as a diuretic, though ſometimes it vomits or purges; the moſt commodious form for the exhibition of ſquills, unleſs when deſigned as an emetic, is that of a bolus or pills; liquid forms are to moſt people too offenſive, though they may be rendered leſs diſagreeable both to the palate and ſtomach, by the addition of aromatic diſtilled waters. The root yields the whole of its virtues to aqueous and vinous menſtrua, and vegetable acids. The *Scillæ exſiccatæ*, *dried Squills*, loſe four fifths of their original weight, hence gr. 6 of the dried root are equal ℥ſs of it when freſh.

IPECACUANHA.

Ipecacuanha. D. gr. 10 to 25.

It is brought from the *Spaniſh Weſt Indies*; there are three different colours of ipecacuanha, an aſh-coloured or grey, a brown and white; the aſh-coloured has very little ſmell, a bitter, ſubacrid, mucilaginous taſte; the white has no perceptible bitterneſs; the aſh-coloured or grey is uſually preferred in medical uſe, and the white, though taken in a large doſe, has ſcarce any effect at all. Ipecacuanha is one of the mildeſt and ſafeſt emetics in phyſic, and has a peculiar advantage, that if it ſhould not operate by vomit, it paſſes off by the other emunctories; is almoſt an infallible remedy in dyſenteries and other inveterate fluxes, as alſo in diſorders proceeding from obſtructions of long ſtanding. In dyſenteries it almoſt always produces happy effects, and often performs a cure in a very ſhort time in other fluxes of the belly; in the beginning of dyſenteries, and in ſuch as are of a malignant kind, or where the patient breathes a tainted air, if it has not been found equally ſucceſsful in theſe caſes, it is neceſſary to continue the uſe of it for ſeveral days, and to join with it opiates, diaphoretics and the like. In dyſenteries, the ſkin for the moſt part is dry and tenſe, and perſpiration obſtructed, the freedom of which is of the utmoſt importance, and an increaſe of which, even in a healthy perſon, is generally obſerved to ſuppreſs the evacuation by ſtool, the common diaphoretics paſs off without effect through the inteſtinal canal; but ipecacuanha, if the patient after a puke or two, be covered up warm, brings on a plentiful ſweat. After the removal of the dyſentery, it is neceſſary to continue the uſe of the medicine for ſometime longer, in order to prevent a relapſe; for this purpoſe a few grains divided into ſeveral doſes, ſo as not to occaſion any ſenſible evacuation, may be exhibited every day; by this means the cure is effectually eſtabliſhed; and ſmall doſes given even from the beginning, have been often found to have better effects in the cure of this diſeaſe than larger ones; gr. 10 has been found to operate as ſtrongly as ℈1 or 2.

Vitriolum. *Vitriol.*

Is a ſaline, chryſtalline, concrete, compoſed of an acid ſalt ſimilar to that of ſulphur and oil. There are but three metals that this ſalt is capable of uniting with, viz. zinc, copper, and iron; when united with the firſt it forms a white, with the ſecond blue, and with the third green vitriol. White vitriol is ſome-

times exhibited from gr. 5 to 31, as an emetic; it operates very quickly, and, if pure, without violence; it is uſed externally as an ophthalmic. The blue is highly acrid, auſtere, and nauſeous; is a ſtrong emetic, and too violent for internal uſe; it is chiefly uſed as an eſcharotic, and for ſtopping hæmorrhages. All the three vitriols are found natives in the earth in many places; they are purified by diſſolution, filtration, evaporation, and cryſtalization. *Vitriolum Calcinatum*, *Calcined Vitriol*, is chiefly uſed for the diſtillation of the ſpirit of vitriol, and as a ſtiptic applied to a wound, to ſtop blood. Vitriol calcined to redneſs is called *colcothar* of *vitriol*.

Antimonium. *Antimony.*

Is a ponderous, brittle, ſemi-metal, or rather ore of metal, compoſed of ſhining ſtreaks like needles, intermingled with a dark lead coloured ſubſtance, of no manifeſt taſte or ſmell. There are ſeveral mines of it in *Germany*, *Hungary*, *France*, and ſome in this country. Antimony is compoſed of ſulphur and a metalic body called ſtibium; it contains an acid ſalt, which is ſheathed up in a great deal of ſulphur, which hinders it from acting till it has an opening; it ſhould never be taken in its crude ſtate, leſt it ſhould find an acid in the ſtomach to open its body, and make it violently emetic. Dr. *Cheyne* ſays, that liquid quick-ſilver will do great ſervice in the beginning of plicatures of the inteſtines, in obſtructions of the glands and valves, and in foulneſſes and hard concretions, or obſtructions in the mouth of the lacteals. He ſays it is eminently uſeful in aſthmas, by forcing open by its weight, the obſtructed mouths of the lacteals, and attenuating the viſcid juices of the lungs, and rendering them pervious, and thereby promoting expectoration. It is extremely difficult exactly to determine the proportions of ſulphur and ſemi-metal which enter the compoſition of antimony, ſeeing they can ſcarcely be perfectly ſeparated from one another, without ſome part of them being loſt in the operation. The proportions likewiſe vary in different ſorts of antimony, ℥16 of ſome ſorts yield 10 or 11 of regulus, while the ſame quantity of others ſcarce yields 8.

Antimony is a medicine of the greateſt power and efficacy of any known ſubſtance whatever; a very minute quantity is capable of producing violent effects; if taken in a ſuitable ſtate, by different treatment, it yields ſtrong emetics and cathartics; if exhibited in ſuch a form as to be immediately miſcible with the animal fluids, it proves violently emetic. Again, if it is ſo managed as

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to be more ſlowly acted upon, it becomes cathartic; and in either caſe, if the doſe is extreamly ſmall, diaphoretic. Vegetable acid extracts ſo little from this ſemi-metal that the remainder ſeems to have loſt nothing of its weight. The tincture proves in ſmall doſes ſtrongly emetic, and in ſmaller ones, powerfully diaphoretic.

The regulus is obtained by powdering antimony, and then expoſing it to a gentle fire till the ſulphur exhales, the metalline part remaining in form of a white calx, reducible by proper fluxes, unto a whitiſh, brittle, ſemi-metal, called regulus. This regulus, I ſay, has been caſt into the form of pills, which acted as violent cathartics, though without ſuffering any ſenſible diminution of weight in their paſſage through the body, and this repeatedly for a great many times. Antimony diveſted of the inflammable principle which it has in common with all metallic bodies, that is, when reduced to a calx, becomes indiſſoluble and inactive. The calx, however, when urged with a ſtrong fire, melts into a glaſs, as eaſy of ſolution in part, and as violent in the operation, as regulus itſelf. The glaſs when thoroughly mingled with ſuch ſubſtances as prevent it's ſolubility, as wax, reſins, &c. is again rendered mild. Vegetable acids diſſolve only an extreamly minute portion of this metal; but the ſolution, as we obſerved, proves powerfully emetic and cathartic. The nitrous and vitriolic acids only corrode it into a powder, to which they adhere ſo ſlightly as to be ſeparable in good meaſure, by water, and totally by fire, leaving the regulus in form of a calx ſimiliar to that prepared by fire alone; the marine acid has a very different effect. This reduces the regulus into a violent corroſive, and though it with difficulty unites, and very cloſely adheres to it, inſomuch as not to be ſeparable by any ablution, nor by fire, the regulus ariſing along with it; yet the nitrous or vitriolic acid expells the marine, and reduces the corroſive into a calx ſimilar to the foregoing. Sulphur remarkably abates the power of this ſemi-metal, and hence crude antimony, in which the regulus appears to be combined with ſulphur, from one fourth to one half it's weight, proves altogether mild. If a part of the ſulphur is taken away by ſuch operations as do not deſtroy, or calcine the ſemi-metal, the remaining maſs becomes proportionably more active; the farther the ſulphur is ſeparated the more does the regulus, thus diveſted of it's corrector, exert its violence. Sulphur of antimony is abſorbed in fuſion by certain metals and by alkaline ſalts; theſe laſt when united with ſulphur prove a menſtruum for all metals, zinc excepted; and hence, if the fuſion is long continued,

tinued, the regulus is taken up, and rendered ſoluble in water. Antimony is alſo free'd from its ſulphur by deflagration with nitre; the larger the quantity of nitre is to a certain degree, the more the ſulphur will be diſſipated, and the preparation will be the more active: If the quantity of nitre is more than ſufficient to conſume the ſulphur, the reſt of it deflagrating with the inflammable principle of the regulus itſelf, renders it again mild. The different degrees therefore of ſtrength or activity of antimony depend on its containing different proportions of ſulphur; hence antimony, deflagrated with one ſixth part of its weight of nitre, purges and vomits very gently for the moſt part in doſes from gr. 8 to 10; deflagrated with one half of its weight of nitre vomits ſtrongly, in doſes from gr. 1 to 6; and if equal quantities of both are deflagrated, it proves a violent emetic in doſes from gr. 1 to 5. Here the nitre ſeems to open all its parts, and pretty nearly to ſeparate all the ſulphur from the metal. If therefore you increaſe the quantity of nitre, part of the antimony will be converted into a calx, and the medicine will become milder. Hence if twice the weight of nitre is made uſe of the metal will be ſo far calcined as to appear white, and ſo mild, as only to occaſion ſome ſlight nauſea, and gentle vomiting; but if thrice its weight is uſed the antimony becomes a meer calx; and in this proceſs, however, part of the nitre is changed into a neutral ſalt by the vitriolic acid contained in the ſulphur, which unites with the fixed alkaline, while the nitrous acid, and the phlogiſton, fly off in the inflammation; and this produces a *Nitrum Vitriolatum*, which is a medicine of great activity, even if it was ſuffered to adhere to the calx, but by ſubjecting it to the operation of waſhing, this alſo is ſeparated from it.

Cuprum. *Copper.*

There are many mines of copper in *Europe*. It is found in powder or ſtones, much like to iron ore; it abounds with a vitriol and ſulphur, and is of a corroſive quality, which renders the internal uſe of it very inadviſeable. It takes ruſt very eaſily; for if you leave a drop of water ſome time upon a piece of copper, it makes a verdigreaſe, which ought to prevent peoples eating or drinking any thing that has ſtood long in a copper veſſel, which is a compoſition of copper, and *lapis calaminaris*; yet braſs gives leſs impreſſion to things than copper, therefore is preferable to copper for kitchen uſes. The preparations of copper are violently emetic, therefore very rarely given internally. Some have

have ventured upon a ſolution of gr. 1 or 2 of it in vegetable acids, and obſerve that it immediately acts upon being received into the ſtomach, and is good to occaſion the throwing up of poiſonous things that have been ſwallowed. A ſaturated ſolution of this metal in volatile alkaline ſalts was formerly uſed for drying and cleanſing ulcers, and for the preventing the growth of fungous fleſh; but it has not for a long time been taken notice of amongſt us for any medical purpoſe. It was recommended by *Boerhaave* in diſorders ariſing from an acid, cold, phlegmatic cauſe. If gut. 3 in a glaſs of mead be taken every morning, and the doſe doubled every day, till you get to gut. 24, it proves aperient, attenuating, warming, and ſurpriſingly diuretic, and will cure a confirmed aſcites. He alſo recommended it in ill habits, weakneſs of the ſtomach, &c. Copper is diſſolved by volatile alkalines, and all acids. The ſaturated ſolution, recommended by *Boerhaave*, called *Tinctura veneris volatilis*, *volatile tincture of copper*, is made of copper filings, digeſted with twelve times their quantitity of ſpirit of ſal. ammoniac, (ſome add rectified ſpirit of wine) till the liquor is tinged with a beautiful roſe colour.

Chryſtalli Veneris, *Chryſtals of Copper*, are made of copper, diſſolved in thrice its weight of aqua fortis; one half being evaporated, the remainder is ſet in a cool place to cryſtallize, and then dried for uſe. They are ſtrong cauſtics, ſimilar to the *Cauſticum lunare*. *Æs uſtum* is made of copper plates, ſtratified with ſulphur, nitre, or common ſalt, and calcined to powder.

PRÆPARATA.

E. Regulus Antimonii Medicinalis. *Medicinal Regulus of Antimony.* D. gr. 3 to 20.

Is made of antimony ℥5, ſea ſalt ℥4, ſalt of tartar ℥1, ſeparately ground, rubbed together, and injected into a red hot crucible, and when it flows ſufficiently, is then poured into a warm cone, and ſhaken, till the regulus ſeparates from the ſcoriæ, and falls to the bottom, and, when cold, is ſeparated from the ſcoriæ, and powdered for uſe. In this proceſs the antimony is free'd from a ſmall portion of its ſulphur, which is abſorbed by the alkaline ſalt. This regulus is recommended in all kinds of fevers, both of the intermittent and continued kind. A doſe or two has often removed theſe diſorders, by occaſioning either a ſalu-

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tary diaphoreſis, or acting mildly by ſtool and vomit. It is of ſingular efficacy in ſundry obſtinate chronical diſorders: ſome eſteem it as one of the beſt antimonials, that can with ſafety be given as an alterant; it chiefly operates as a diaphoretic, and very rarely proves emetic.

Regulus Antimonii Martialis, *Martial Regulus of Antimony*, is made of antimony, nitre, and crude tartar, powdered and mixed together, and then put into a crucible with nails, or bits of iron: it has been long laid aſide as precarious and uncertain. If the operation is performed ſeveral times with freſh nitre and tartar, then it is called *Regulus Antimonii Stillatitus*, *Stillated Regulus of Antimony*. This preparation too is rarely or ever made uſe of except in very ſtrong conſtitutions, and in moſt obſtinate, chronical diſtempers. The emetic, and perpetual pills, have been long ſince laid aſide. The ſcoriæ produced, in the ſeveral proceſſes, afford medicines leſs violent; ſome of which are in conſiderable eſteem; they conſiſt of the ſulphur of the antimony, united with an alkaline ſalt, and part of the regulus, taken up by this compound, and rendered ſoluble in water.

L. E. Crocus Antimonii. *Crocus of Antimony.* E. Crocus Antimonii, *vulgo* Crocus Metallorum. *Crocus of antimony, commonly called the Crocus of Metals.* D. gr. 2 to 6.

Is made of equal weight of antimony and nitre, ſeparately reduced to powder, mixed and injected into a crucible, while heated; the matter, when melted, is poured out, ſeparated from the ſcoriæ, and kept for uſe. The longer it is kept in fuſion the yellower it is. The *Edinburgh* College directs the metalline matter, after it is ſeparated from the cruſt, to be edulcorated with water. In this proceſs the ſulphur is entirely conſumed, and the metal is diveſted of its corrector. It acts as a violent emetic, and greatly diſorders the conſtitution; its principal uſe is in maniacal caſes, as the baſis of ſome other preparations; and in theſe caſes it is of infinite ſervice.

Crocus Antimonii Mitior, *Milder Crocus of Antimony.* Is made of two parts of antimony, and one of nitre, reduced to powder, and injected into a red hot crucible; when the deflagration ceaſes, the matter is removed, and reduced to a powder for uſe; it acts more powerfully than the *Regulus Antimonii Medicinalis*; the increaſe of the nitre diſſipates a great quantity of the ſulphur; but it is milder than the *Crocus Antimonii*.

Emeticum

Emeticum Mite Antimonii, *Mild Antimonial Emetic.* Is made of one part of antimony, and two parts of nitre, ground together, and thrown into a red-hot crucible; after the deflagration is over, the remaining matter, which is white, is waſhed for uſe. The quantity of nitre in this preparation is ſo large, as not only to conſume the ſulphur of the antimony, but likewiſe great part of the inflammable principle of the regulus. Its effects are nearly the ſame with the *Crocus Antimonii*, but ſomewhat milder. *Boerhaave* ſays, that it only occaſions ſome ſlight nauſea, and gentle vomiting, with a large diſcharge of ſaliva, and thick urine.

Ceruſſa Antimonii, *Ceruſs of Antimony.* Is made of one part of regulus of antimony, and three parts of nitre, powdered, and injected into a crucible, having a light white heat, the matter being afterwards taken from the fire, is waſhed with water. This differs not from the *Calx Antimonii*, or *Antimonium Diaphoreticum*; only there is no need to uſe ſo much nitre, as when antimony itſelf is employed; for two parts of nitre to one of regulus is ſufficient.

L. Crocus Antimonii Lotus. *Waſhed Crocus of Antimony.*

Is made by reducing the foregoing crocus of antimony to a very fine powder, then boiling it in water, and waſhing it in warm water, till perfectly inſipid. This proceſs is deſigned to fit the crocus for the preparation of emetic tartar.

L. Calx Antimonii. *Calx of Antimony.*

Is made of one part of antimony, and three parts of nitre, powdered, and injected into a crucible, having a light white heat, the matter being afterwards taken from the fire, is waſhed with water.

E. Antimonium Diaphoreticum Nitratum. *Nitrated Diaphoretic Antimony.*

Is made of one part of antimony, and three parts of nitre, ſeparately reduced to powder, injected by ſpoonfuls into a red-hot crucible; when the detonation is over, the white maſs is calcined for half an hour, and the powder is kept for uſe: if it is waſhed with water till it is inſipid, it is called *Antimonium Diaphoreticum Lotum*, or *dulce*. The ſeveral waſhings mixed together, filtrated and evaporated over a gentle fire, till a cuticle forms on the ſurface, and put

in a cold place to cryſtallize, are called *Nitrum Stibiatum*, *Antimoniated Nitre*. The calx of antimony, when free'd by waſhing from the ſaline matter, is extremely mild, if not altogether inactive, and has been given by half ounces, and repeated two or three times a day, for two or three days together, without hurt. It is certainly amongſt the mildeſt preparations of antimony, and is uſeful for children, and ſuch delicate conſtitutions, where the ſtomach and inteſtines are eaſily affected. It does not ſtimulate the *primæ viæ*; is a good alexipharmic in dangerous malignant fevers, ſmall pox, meaſles, ſcorbutic, and venereal diſeaſes. If it is prepared with nitre abounding with ſea-ſalt, then it proves emetic, and ſometimes operates violently. *Nitrum Stibiatum* differs little from *Sal Polychreſti*.

E. Sulphur Auratum Antimonii. *Golden Sulphur of Antimony.* D. gr. 1 to 6.

Is made of ſoap lee ℔ 4, water ℔ 3, boiled together, then ℔ 2 of antimony, reduced to powder, is injected, and the whole boiled over a gentle fire for three hours, conſtantly ſtirring it with an iron ladle from the bottom, and a little water is added; the lixivium, while hot, is filtrated; there is dropt into it a proper quantity of ſpirit of nitre, diluted with an equal quantity of water; the precipitated ſulphur is carefully waſhed with warm water; if the liquor, that remains after waſhing the ſulphur, is filtrated and evaporated to a pellicle, and placed in a cold place, it ſhoots into cryſtals.

L. Sulphur Antimonii Præcipitatum. *Precipitated Sulphur of Antimony.*

Is made of antimony ℥ 16, tartar ℔ 1 p. nitre ℔ ſs p. ſeparately reduced to powder, then mixed, and melted in a red-hot crucible, then poured into a conical mould; the metallic part, called regulus, falls to the bottom; the ſcoriæ are diſſolved in water, and the liquor is filtrated, and ſpirit of ſea-ſalt is dropped upon it, and the precipitated ſulphur is waſhed from the ſalt, and dried for uſe. Theſe preparations contain a conſiderable quantity of the metallic part of the antimony, which is reducible from them by proper fluxes. That made by the firſt of the above proceſſes, contains greateſt part of the ſemi-metal; for very little, ſometimes ſcarce any at all, ſeparates in fuſion. The quantity of regulus taken up in the ſecond will alſo be different, according to the degree of

of fire employed, and the length of time the fuſion is continued. Theſe medicines, therefore, are liable to a great variation in point of ſtrength, and ought always to be given in ſmall doſes at firſt, and increaſed by degrees. They prove emetic, when taken upon an empty ſtomach, in a doſe of gr. 4, 5 or 6. They are ſcarce ever preſcribed in this intention, being chiefly uſed as alterative deobſtruents, particularly in cutaneous diſorders. Their emetic quality is eaſily blunted by making them up into pills with reſins, or extracts, and giving them upon a full ſtomach: with theſe cautions, they have been increaſed to gr. 16 a day, and continued for a conſiderable time, without occaſioning any diſturbance upwards or downwards. A compoſition of *Sulphur Auratum*, with *Mercurius Dulcis*, is a powerful, yet ſafe alterative in cutaneous diſorders, and has compleated a cure after ſalivation has failed. In venereal caſes likewiſe this medicine has produced excellent effects; a mixture of equal parts of the ſulphur with calomel, well triturated together, and made into pills with extracts or reſins, as extract of guaiacum, may be given from gr. 4 to 10, morning and night, the patient keeping moderately warm, and drinking after each doſe half a pint of the decoction of the woods, with two handfuls of water-creſſes boiled in it, and the whole acidulated with the juice of lemons. It is beſt to begin with a pill of gr. 2 morning and night; they generally promote perſpiration, and ſcarce ever occaſion a tendency to vomit or purge, or at all affect the mouth. A doſe of cooling phyſick ſhould always be given before the pills, and occaſionally repeated. If the bile increaſes, and is troubleſome, then it is very proper to give a doſe of infuſion of ſena, and emetic tartar gr. 1. Sometimes, after taking three or four doſes, the patient complains of an head-ach; in that caſe, the patient ſhould take two pills at once in a roaſted apple, which generally works gently both by vomit and ſtool, and immediately eaſes the head, which generally proceeds from a foul ſtomach; the patient ſhould drink, through the day, tea made of roſemary, lavender, marjoram, &c. and breakfaſt moſtly upon coffee, avoiding all ſalt meat, butter, oil, pork, &c. Rice-milk, with cinnamon boiled in it, makes a good ſupper. In adminiſtering this, and all other alteratives, care ſhould be taken that they are not thrown off before they are properly mixed with the blood, therefore they ought to be given in ſmall doſes, and continued long, that thereby they may not paſs off by ſtool before they enter the habit, and an aſtringent warm medicine ſhould be joined with the pill at night, as *ſyrup. e meconio. theriac. androm. mithridat. &c.*

with a ſmall quantity of bark in the day, by this means you keep up the force of the ſolids, while the pill diſſolves the viſcidity of the fluids.

E. Vitrum Antimonii. *Glaſs of Antimony.*

Is antimony reduced to powder, and calcined till the fumes ceaſe, and the antimony is reduced to a grey powder, which is melted with an intenſe heat, and then poured upon an heated plate of copper. This is a rough emetic, and very much diſorders the conſtitution; when combined with wax or reſins, it becomes more mild, and may with ſafety be given internally.

E. Vitrum Antimonii Ceratum. *Cerated Glaſs of Antimony.* D. gr. 2. to ℈ı.

Is made of yellow wax ʒı, melted in an iron veſſel, to which ℥ı of antimony reduced to powder is injected, and the whole placed over a gentle fire for half an hour, and conſtantly ſtirred; then it is poured upon paper, and, when cold, ground into powder. This is good in dyſenteries; it makes ſome ſick, and vomits; it purges almoſt every one; though in ſome caſes it has effected a cure without any ſenſible evacuation.

Antimonium Catharticum, Purging Antimony of Wilſon. Is the glaſs of antimony finely powdered, with three fourths of its weight of oil of vitriol, digeſted 48 hours, then diſtilled; and the powder, being waſhed till all its acidity is gone, is ground with an equal weight of *Glauber*'s cathartic ſalt, and a double quantity of vitriolated nitre; the mixture being kept in a gentle fuſion, for a quarter of an hour, is pulverized, waſhed and dried for uſe. This is the moſt certain cathartic made with antimony, and operates without nauſeating the ſtomach; is good in all ſcorbutic and chronical diſtempers, and even cures confirmed poxes.

L. Cinnabaris Antimonii. *Cinnabar of Antimony.* D. gr. 10 to ℈ı.

Is the matter which remains in the retort, after the diſtillation of the antimonial cauſtic, ſublimed. It is compoſed of ſulphur of antimony, and the mercury of the ſublimate, which are perfectly the ſame with the common brimſtone and quickſilver, of which the *Cinnabaris Factitia* is made. It is not different from the common cinnabar; in colour indeed they differ a little, the one is a little darker than the other, which is owing to its containing a larger proportion

proportion of ſulphur. They are both good diaphoretics and alteratives, in all chronic caſes; good in childrens epilepſies, convulſions, &c. There are many other preparations of antimony, which the College takes no notice of, as

Mercurius Vitæ, *Mercury of Life*, which is the rectified butter of antimony, put into a ſufficient quantity of water, and the white precipitated powder, being edulcorated by repeated effuſions of water, is kept for uſe. This preparation is ſolely compoſed of the reguline part of the antimony, corroded by the acid ſpirit of ſea-ſalt; which acid is ſo cloſely united, as not to be ſeparable by any ablution with water. It is a violent emetic, and is ſaid to be an excellent medicine in maniacal caſes, in conſtitutions that can bear it.

Bezoardicum Minerale, *Bezoar Mineral.* Is the butter of antimony, with the ſpirit of nitre dropt upon it, till the effervescence ceaſes; then the ſpirit is drawn off, and the operation repeated three or four times; and at laſt the remaining matter is calcined an hour for uſe. This was formerly in great eſteem as a diaphoretic, but it differs little from the calx of antimony, made directly by deflagration with nitre. Some prefer the bezoar to the calx in obſtinate leprous caſes.

Magiſterium Antimonii, *Magiſtery of Antimony.* Is powdered antimony digeſted for ten or twelve hours with four times its quantity of *Aqua Regia*, when cold, it is put into a gallon of water, which is poured off before it ſettles, and the operation of ablution with water repeated, till nothing remains in the matraſs but a yellowiſh powder, which is the combuſtible ſulphur of antimony; when the white powder hath ſubſided, the water is poured from it, and freſh water added, continuing the ablutions till the magiſtery becomes inſipid, which is then dried for uſe. This operates more by ſtool than vomit. It ſometimes operates by ſweat; is good in apoplexies, palſies, and in all nervous and hypochondriacal diſeaſes. It may be given from gr. 5 to 15.

Kermes Mineralis, *Kermes Mineral.* Is made of antimony ℥16, any fixed alkaline ſalt ℥4, boiled in a pint of water four hours; the warm water is filtrated, and, when cold, decanted: to the powder there is added a pint more of freſh water, and three ounces more of alkaline ſalt, which are boiled as before; and the proceſs is repeated a third time with the addition only of two ounces of alkaline ſalt, and a pint of water; the liquor, after boiling, when warm,

warm, is filtrated, and the powder which afterwards ſubſides, is kept for uſe. This medicine has been eſteemed in ſome places under different names, as *Pulvis Carthuſianus*, *poudre des Chartreaux*, and it is in fact only a ſulphur of antimony, and differs not from the above ſulphurs; all of them owe their virtues to a part of the regulus of antimony, which the alkaline ſalt, by the mediation of ſulphur, renders ſoluble in water. They are powerful antimonials, and moſt efficacious deobſtruents, extremely uſeful in ſcrophulous and obſtinate ſcorbutic caſes, and in all diſorders ariſing from glandular obſtructions, in chlorotic, cachectic, and hyſteric caſes, where the vitiated craſis of the blood has impaired the *vis vitæ*, and debilitated the ſecretive powers; is uſeful in all nervous, variolous, and malignant fevers. It is beſt to begin with ſmall doſes, and gradually increaſe them, for the force of their operation varies greatly in different conſtitutions.

Panacea Mercurii, *Panacea of Mercury*. Is made of antimony ℥16, nitre ℥2, common ſalt ℥1ſs, charcoal ℥1 reduced to powder, and put into a red-hot crucible, and the fire continued for a quarter of an hour; when the matter is cold, a regulus is found at the bottom, and above it a ſilver coloured ſubſtance, and upon the top of all a ſpungy ſubſtance, which is to be reduced to powder, edulcorated with water, and dried for uſe; then it appears of a fine gold colour; the middle ſubſtance is not of ſo pleaſant a colour, and works rougher; the regulus is the ſame with the regulus of antimony. The gold coloured ſubſtance upon the ſurface is ſuppoſed to be the baſis of *Lockyer*'s pills, that celebrated purge. Ten grains of this panacea, mixed with an ounce of white ſugar-candy, and made up into a maſs with mucilage of gum tragacanth, and divided into an hundred ſmall pills, of which one, two, or three, may be taken at a time, operate gently by vomit and ſtool. This panacea is an excellent medicine in the ſmall pox, gout, ſcurvy, dropſy, and obſtinate chronical caſes. As the ſtate of the fluids is, it proves either emetic, cathartic, diuretic, or diaphoretic: it may be ſo managed by a ſkilful hand, as to operate little or none at all in the *primæ viæ*, nor be perceived till it gets into the ſmall veſſels, and then are all thoſe mighty things effected, as the cure of the gout, pox, evil, &c. Whoever knows how to turn theſe medicines into alteratives will do wonders in the cure of diſeaſes.

Æthiops Antimonialis, *Antimonial Æthiops*. Is made of equal quantities of antimony and ſea-ſalt fluxed together: when the matter is cold, the regulus is ſeparated from the ſcoriæ, and ground with an equal weight of purified quick-

ſilver

ſilver till they are incorporated. This preparation is ſaid to be of remarkable efficacy in venereal caſes of long ſtanding, in cancerous tumours, ſcorbutic and ſcrophulous caſes, obſtinate glandular obſtructions, and in many other chronical caſes, out of the power of other medicines. A few grains may be given at firſt, and the doſe gradually increaſed, according to its operation: it acts chiefly by promoting perſpiration; in ſome conſtitutions it proves purgative, and in others, if the doſe is increaſed, emetic. Sundry other preparations of this kind have of late been held as great ſecrets in ſome particular hands; they are generally compoſed of mercury united by trituration either with crude antimony, the medicinal regulus, or the golden or precipitated ſulphurs of antimony. If a diſeaſe does not yield to medicines of this kind, all the materia medica beſides will afford little relief; they are noble preparations, and will do wonders in judicious hands. All the great feats done by *Ward*, *Tames*, &c. are brought about by this means; but we have no need to run to noſtrums. We know that mercury and antimony, both ſeparately and jointly, are the moſt infallible remedies amongſt natures productions, for ſeurvies, ſmall pox, lues veneria, and moſt chronic diſeaſes; and the ſhops afford us neat and elegant preparations of theſe ſimples, capable of anſwering all the intentions that they are able to perform.

Flores Antimonii, *Flowers of Antinomy.* Are prepared from powdered antimony, by ſublimation. They ſeem to be the moſt active ſalts and ſulphurs that the antimony contains; they operate very violently, and chiefly by vomit; are of great ſervice in maniacal caſes where their violence can be borne.

The *Flores Reguli Antimonii cum Sale ammoniaco*, *Flowers of Regulus of Antimony with ſal ammoniac*, are obtained from equal quantities of regulus of antimony and ſal ammoniac, by ſublimation; the flowers are waſhed from the ſalt and dried for uſe. They operate ſomewhat milder than the other flowers. If you take the flowers before the ſeparation of the ſal ammoniac, and digeſt them with four times their quantity of diſtilled vinegar, eight days, and ſweeten the flowers by ablution, you have *antimonium reſuſcitatum*, *antimony revived*; it works by vomit, and ſometimes by ſweat, and proves of great ſervice in maniacal caſes.

L. E. Tartarum Emeticum. *Emetic Tartar.* D. gr. 1 to 8.

Is made of the waſhed crocus of antimony and cryſtals of tartar āā ℔ ſs, boiled for half an hour in ℔ 3 of water, then filtrated, evaporated, and ſet to cryſtalize.

cryſtalize. The *Edinburgh* College directs it to be made of cream of tartar ℥4, glaſs of antimony powdered ℥2, boiled in ℔4 of water for ten hours, and the ſolution being filtrated and evaporated, is ſet to cryſtalize. It may be made with cream of tartar and one third of its weight of crocus metallorum. This is one of the beſt antimonial emetics, being rendered ſoluble by vegetable acids, it acts more certainly and ſafely, without ruffling the conſtitution. When deſigned to have the full effect of an emetic, the doſe is from gr. 3 to 8; it may be likewiſe advantagiouſly given in ſmaller doſes as a diaphoretic and alterative, and as a ſtimulus to vegetable cathartics.

L. VINUM ANTIMONIALE. *Antimonial Wine.* E. VINUM EMETICUM. *Emetic Wine.* D. gut. 10 to 54.

Is made of crocus of antimony waſhed ℥1, mountain wine ℔1ſs, digeſted without heat, and filtrated through paper. The *Edinburgh* College directs it to be made of crocus metallorum ℥1, mountain wine ℔1, ſtirred together, when the mixture has perfectly ſettled, the wine is carefully poured out. This formerly went by the name of *vinum benedictum, bleſſed wine*; it poſſeſſes the whole virtues of the antimony, and may be ſo doſed and managed, as to perform all that can be effected by any antimonial preparation, with this advantage, that as the active part of the antimony is here already diſſolved, and rendered miſcible with the animal fluids, its ſeparation is more certain; given from gut. 10 to 60, it acts as an alterative and diaphoretic; in larger doſes as a diuretic and cathartic, whilſt 33 or 4 prove violently emetic. It has been chiefly uſed in this laſt intention in ſome maniacal and apoplectic caſes, and hence had the name of emetic wine.

L. E. TINCTURA ANTIMONII. *Tincture of Antimony.* D. gut. 10 to 60.

Is made of any fixed alkaline ſalt ℔1 antimony reduced to powder ℔ſs, mixed together and melted over a gentle fire for one hour, then the mixture being powdered, is digeſted for three or four days with ℔2 m. of rectified ſpirit of wine. The *Edinburgh* College makes this tincture of powdered antimony ℥4, ſalt of tartar ℥6, gradually injected into a crucible, and melted with a ſtrong heat, after half an hour the matter is powdered, while hot, in a warm iron mortar, and digeſted in ℔2 rectified ſpirit of wine in B. A. for three days, and then decanted. This antimonial tincture when taken upon an empty ſtomach will puke; it is a good deobſtruent, diuretic, diaphoretic and purifier of the blood; is good in all cachexies, and chronical caſes.

L. VINUM

L. Vinum Ipecacuanhæ. *Wine of Ipecacuanha.* E. Tinctura Ipecacuanhæ. *Tincture of Ipecacuanha.* D. ʒ2 to ʒiſs.

Is made of ipecacuanha ʒ2, yellow rind of *Seville* orange peel dried ʒſs, macerated without heat in ℔ 2 m. of *Canary*. The *Edinburgh* College makes their tincture of ipecacuanha in powder ʒ1, mountain wine ℔ 1, digeſted two days in mountain wine, and then filtrated. Both theſe preparations are very mild and ſafe emetics, and as ſerviceable in dyſenteries as ipecacuanha in ſubſtance.

L. E. Acetum Scilliticum. *Vinegar of Squills.* D. ʒ1 to ʒſs.

Is made of dried ſquills ℔ 1, ℔ 6 of vinegar, infuſed in a ſlow heat, and then ſtrained, to which one twelfth of its quantity of proof ſpirit is added, which preſerves it the longer clear. This is a very powerful ſtimulating aperient, attenuates tenacious juices, and is uſed with good ſucceſs in diſorders of the breaſt, occaſioned by a load of thick viſcid phlegm; it promotes urine, &c. Where crudities abound in the *primæ viæ*, it may be given in a large doſe to evacuate them by vomit; it is moſt conveniently exhibited along with cinnamon or other agreeable aromatic water, which prevents the nauſea, which otherwiſe, even ſmall doſes, are apt to occaſion.

Vinum Scilliticum, *Wine of Squills.* Is made of ſquills ℔ 1, infuſed in ℔ 8 of white wine for fourteen days, and then ſtrained for uſe. This is a gentle emetic, and is preferable to the vinegar, in cold weak ſtomachs: after uſing it ſometime it does not vomit, but will irritate enough to ſqueeze out ſome ſlimy water from the glands, and thereby greatly contribute to render them ready in the diſcharge of their proper offices, and wonderfully guards againſt the rheums of old age, and the conſequences of frequent debauches.

L. E. Syrupus Scilliticus. *Syrup of Squills.* D. ʒ1 to 2.

Is made of vinegar of ſquills ℔ 1ſs, cinnamon, ginger āā ʒ1, macerated for three days, to the ſtrained liquor ℔ 3ſs of double-refined ſugar are added. The *Edinburgh* College directs it to be made by mixing ℔ 2 of vinegar of ſquills, and ℔ 4 of white ſugar. The ſpices in the firſt ſomewhat alleviate the offenſiveneſs of the ſquills, though not ſo much as to prevent the medicine from being diſagreeable. It is chiefly uſed for attenuating viſcid phlegm, and promoting expectoration, which it very powerfully does.

L. E. Oxymell Scilliticum. *Oxymel of Squills.* D. 51 to ℥ſs.

Is made of clarified honey ℔3 p. vinegar of ſquills ℔2 m. boiled in a glazed earthen veſſel over a gentle fire to the conſiſtence of a ſyrup. This is a uſeful aperient, detergent, and expectorant, of great ſervice in aſthmas, coughs, and in other diſorders where phlegm abounds; it ſhould be given with ſome aromatic water, as that of cinnamon, to prevent the nauſea; in large doſes it proves emetic.

L. Trochisci e Scilla. *Troches of Squills.*

Are made of baked ſquills ℔ſs, wheat flower ℥4, beat together and formed into troches, and then dried with a gentle heat. The ſquill itſelf moderately dried is preferable to theſe troches.

E. Pilulæ Scillitice. *Scillitic Pills.*

Are made of gum ammoniac, freſh ſquills āā ℥ſs, beat together in a marble mortar, and then ℥ſs of leſſer cardamom ſeeds, reduced to powder, is added, and the whole made into pills with balſam of copaiba. Theſe pills promote urine, and expectoration; attenuate viſcid juices; a ſcruple of the compoſition contains nearly gr. 4 of freſh ſquills.

L. Sal Vitrioli. *Salt of Vitriol.* D. gr. 3 to 31.

Is made of white vitriol ℔1 p. ſtrong ſpirit of vitriol ℥1 p. with a ſufficient quantity of water, boiled till the vitriol is diſſolved, the liquor is then ſtrained thro' paper, and ſuffered to cryſtalize. This is ſometimes called *Gilla Vitrioli.* It works mildly by vomit, and operates as ſoon as taken, and is ſuppoſed to come up again, upon the firſt ejection; therefore ſome give as many doſes in a poſſet drink, or in carduus tea, as they would have the patient vomit.

Pulvis Sympatheticus, Sympathetic powder. Is purified *Engliſh* vitriol, expoſed to the ſun, till it turns to a powder, which is beat and again expoſed to the ſun, till it becomes very white; it is a very powerful ſtiptic, and is ſucceſsfully uſed in ſtopping blood from the noſe, or from wounds, and will incarnate and heal.

L. E. SPIRITUS VITRIOLI TENUIS ET FORTIS ATQUE COLCOTHAR. *Weak and Strong Spirit of Vitriol and Colcothar.* D. gut. 20 to 50.

Is obtained by diſtilling calcined vitriol three days, and then the diſtilled liquor is put into a receiver and diſtilled again in a ſand heat, the weak ſpirit comes over, and the ſtrong ſpirit, improperly called the oil of vitriol, remains; what remains in the veſſel after the firſt diſtillation, is called colcothar of vitriol. The ſpirit of vitriol is the moſt ponderous of all liquids we are yet acquainted with, and the moſt powerful of the acids; it takes poſſeſſion of an alkale from every other acid; mixed with water, it raiſes a great heat; in medicine it is chiefly employed as a ſubſervient to other preparations; it is likewiſe mixed with juleps, gargariſms, &c. in ſuch a quantity as to give them an agreeable tartneſs, for abating heat, quenching thirſt, and promoting the urinary ſecretions. The ſtrong ſpirit is chiefly uſed as a menſtruum in ſome metalline preparations.

L. E. SPIRITUS VITRIOLI DULCIS. *Dulcified Spirit of Vitriol.* D. gut. 1 to 50.

Is obtained by diſtilling, in very gentle heat, ℔ 1 p. of ſtrong ſpirit of vitriol, and ℔ 1 m. of rectified ſpirit of wine. The *Edinburgh* College directs this ſpirit to be obtained of rectified ſpirit of wine ℔ 4, and ℔ 1 of oil of vitriol ſlowly added to it, and digeſted in a cloſe veſſel for eight days with a very gentle ſand heat; then it is diſtilled with very ſlow heat, till oily globules appear in the neck of the retort; then an equal quantity, by meaſure, of water, in every pint of which one dram of ſalt of tartar has been diſſolved, is added, and the diſtillation, with a gentle heat, is continued till the ſpirit comes over. This ſpirit is greatly eſteemed as a medicine and as a menſtruum. It promotes perſpiration, and the urinary ſecretions; expells flatulencies, eaſes pain, procures ſleep, and is good in flatulent cholics: it differs little from *Hoffman*'s anodyne liquor; it may be given in any convenient vehicle. As a menſtruum, it extracts elegant tinctures from ſeveral vegetables, and diſſolves ſome reſinous ſubſtances that are ſcarce acted upon by ſpirit of wine alone. If the dulcified ſpirit of vitriol is rediſtilled with an admixture of water, and afterwards mixed with freſh parcels of water, it throws to the ſurface an extremely volatile inflammable fluid, called *Æther, or Ætherial Spirit of Wine*, which, by digeſtion in the cold, extracts the eſſence or oils of any vegetable ſubſtances, wherein their virtues reſide, which may again be ſeparated from it by an affuſion of water.

Vitriolum Diaphoreticum, *Diaphoretic Vitriol*, ſometimes called *Sedativum Hombergii*, or the *Volatile narcotic Salt of Vitriol* of *Monſieur Homberg*; is diſtilled from equal parts of ſalt of tartar and burnt hartſhorn, and to the diſtilled ſpirit half as much ſaffron and cochineal, as there was of tartar and hartſhorn, with one eighth part of *Virginian* ſnake root, is added, after digeſtion for twenty-four hours, it is kept in a phial ſtopt for uſe. This is ſaid to be a powerful diophoretic, and is much recommended in fevers, even in ſuch as are of the peſtilential kind; it opens obſtructions, and is good in jaundice, dropſies, ſtuffings of the lungs, and aſthmas; the doſe is from gut. 30 to 120.

FORMULÆ EXTEMPORANEÆ.

℞ Turpeth. mineral. gr. 5, tartar. emetic. gr. 3, conſerv. roſ. rub. q. ſ. f. bolus.

℞ Ipecacuan. ℈1, oxymel. ſcillitic. 36, aq. fontan. ℥1, m. f. hauſtus.

℞ Pulv. ipecacuan. gr. 15, ſyr. ſcillitic. q. ſ. f. bolus.

℞ Pulv. ipecacuan. gr. 10, tartar. emetic. gr. 1, aq. menth. vulg. ſimpl. ℥ı, ſyr. ſcillitic. 31, f. hauſtus.

℞ Vitriol. alb. ℈1, aq. fontan. ℥2, ſyr. croci 32, f. hauſtus.

℞ Tartar. emetic. gr. 5, aq. menth. vulg. ſimpl. ℥1, ſyr. violar. 31, f. hauſtus.

℞ Vin. antimonial. 33, ſyr. croci ℥ſs, f. hauſtus.

℞ Vin. ipecacuan. ℥1, ſyr. ſcillitic. ℥ſs, f. hauſtus.

℞ Vitriol. alb. ℈1, tartar. emetic. gr. 2, conſerv. fruct. cynoſbat. q. ſ. f. bolus.

℞ Oxymel. ſcillitic. ℥1, aq. alexeter. ſimpl. ℥1, ol. amygdal. 34, m.

℞ Tartar. emetic. gr. 6, oxymel. ſcillitic. 31, aq. fœnicul. ℥2, m.

℞ Succ. aſari 36, oxymel. ſcillitic. ℥ſs, aq. alexeter. ſimpl. ℥1, m.

℞ Mel. helleborat. ℥1, acet. ſcillitic. ℥ſs, aq. fontan. ℥1, m.

℞ Sal. abſinth. 32, ſucc. limon. ℥3, aq. alexeter. ſimpl. ℥4.—ſpt. ℥2, ſacchar. ℥1, laudan. liquid. 31, m. f. hauſtus anti-emeticus D. cochl. 2 vel 3.

SECTION

SECTION IX.

CHAP. I.

Of CATHARTICS.

PURGATIVES make one of the moſt important articles in medicine, therefore it is very neceſſary for a Phyſician to be well acquainted with their manner of operation.

Purgation is an excretion by the anus of all things, which can flow from any part of the body, through the inteſtines; therefore cathartics are medicines, which, being applied either externally or internally to a living body, evacuate matter by the *inteſtinum rectum*.

The paſſions of the mind will no leſs effectually purge both upwards and downwards than medicines, as we may obſerve in thoſe who are inflamed with anger, or vehemently ſtruck with fear: this depends upon the motion of the humours and ſpirits being diſturbed by the paſſions.

Thus it appears, our machine is ſo contrived, that though nothing is done to it by any ſort of body, yet if the mechanical motion of the ſpirits is perverted, it may be ſubject to all the effects that are wont to be produced by medicines.

This ſo wonderful motion may be excited in us by the application of ſenſible particles to our bodies, as we ſee in thoſe people that are purged by merely ſmelling a medicine; and if thoſe people fall into diſtempers which deſtroy the ſmell, they are not then purged, though the medicines be applied to their noſtrils.

Nay, ſometimes a purging is excited merely by the ſight of medicines. Some are moved by the external application of purges to any part of the body; others are purged only by the hinderance or diminution of the ſanctorian perſpiration: and this is generally cauſed by moiſt and foggy air.

Purging

Purging ſometimes, as well as vomiting, and every other kind of evacuation, may be excited by external motion, as at firſt going to ſea, travelling in a coach, whether the ſtomach is empty or full; a perſon firſt grows pale and anxious, then nods, grows giddy, and at laſt vomits.

Bodies which act as cathartics when externally applied, are very fine and volatile, as appears from purging plaſters, for their bulk is hardly diminiſhed when the operation is over. The fumes of aloes purge, but when its volatile and ſubtile parts are flown off, what remains is quite inactive.

Hence we ſee that medicines may be divided into ſuch minute parts, as to eſcape almoſt the power of imagination, each of which, however, will retain the powers, which before were proper to the whole maſs. Some people, as ſoon as they enter a room where a cat, mouſe, muſk, cheeſe, &c. is, fall into ſweats, ſometimes faint and drop down, or at leaſt turn ſick, anxious, and very uneaſy. An internal purgative (if of the milder ſort, it is called a laxative) is received by the mouth into the ſtomach, and being diſſolved by its heat and moiſture, and its parts diſperſed; whereby the humours, which it firſt meets with, are diſſolved, and kept from contact and coheſion; then ſome parts of the medicine that are thinner, and eaſier put in motion by vellicating and ſtimulating the fibres of the ſtomach, bring them together with the muſcles of the abdomen and diaphragm into more frequent contractions, till the medicine is thruſt into the inteſtines; the fibres and glands of which being more ſenſible than thoſe of the ſtomach, it eaſily moves, and brings them into more frequent and forcible contractions, whereby theſe glands are ſqueezed, and ſo emit a fluid matter, which lubricates the paſſages, and mixing with the feculent matter of the inteſtines, renders it more fluid, and by their periſtaltic or vermicular motion, they continually propel forwards their contents from the pylorus down to the rectum, whence they are ejected by ſtool. If the medicine has parts rigid, groſs, and full of aſperities, as many kinds of ſalts and tartarous medicines have, by mixing ſuch particles with our fluids, as prevent their running into viſcid coheſions, and by dividing and breaking them when in contact, it renders them ſo fluid as to run off ſooner, and in larger quantities by ſtool, than otherwiſe they would do; for, by experiments eaſy to be tried, thoſe bodies being mixed with any thing tenacious and adheſive, will deſtroy ſuch properties; likewiſe all tenacious and mucilaginous bodies will, by the like means, be rendered much leſs adheſive, and more diſpoſed to fluidity. After this

this manner cream and cryſtals of tartar, manna, and all the milder purges operate, that is, by ſeparating and keeping from contact and coheſion the ſeveral contents of the *primæ viæ*, which renders them fluid, and fitter to run off in larger quantities, than otherwiſe they would do, by the moſt convenient outlets; and the periſtaltic motion of the guts being quickened by gentle irritations, thereby haſtens the diſcharges by ſtool.

Cathartics of this ſort are generally too groſs for ſo many of their particles to enter the lacteals as to affect the blood, therefore their influence extends no further than the *primæ viæ*, that is, the ſtomach and inteſtines, which they cleanſe. But the ſame manner of operation carries its effects further, in proportion to the force of the ſtimulus; for where it is great, all the appendices of the bowels, and even all the viſcera in the abdomen, will, by a conſent of parts, that is, by a communication of nerves, be pulled or twitched, ſo as to affect their reſpective juices in the ſame manner as the inteſtines themſelves affect their contents; the conſequence of which muſt be, that a great deal will be drained back into the inteſtines, and be made a part of what they diſcharge. And when we conſider the vaſt number of glands in the inteſtines, with the outlets of thoſe viſcera opening thereinto, and particularly of the pancreas and liver, it will remain no wonder that ſo vaſt quantities ſometimes are carried off by one ſmart purge; but if a purge, conſiſting of groſs, ſharp-pointed particles, paſſes in too large quantity into the inteſtines, and is not there abſorbed by the lacteals, then it variouſly offends, abrades, and irritates their coats: hence proceed great pains of the belly, exceſſive purging, dyſenteries, &c.

The more violent purgatives conſiſt of very ſubtile, active, and ſtimulating particles, and, when given in ſubſtance, ſhould always be very finely powdered. They enter the lacteal veins, and are mixed with the veinous blood, like the chyle, and flow with it to the heart, and from the heart are diſtributed with the chyle, by the arteries, through the whole body; and becauſe of the great quantities of matter in the larger paſſages, which lay too great a load upon them, they do not at firſt occaſion any very ſenſible effects; but when they are got into the blood, in any conſiderable number, by their motion and acuteneſs of their particles, they vellicate the ſpiral fibres of the veins and arteries, and bring them into more forcible contractions, and thereby accelerate the motion of the blood; upon which, as alſo upon all the fluids in the body, they produce very great effects, by inciding, and, by degrees, dividing and fuſing thoſe viſcid

coheſions

coheſions which obſtruct or move heavily in the capillaries, and, by ſcouring the glands, prevent the juices from running into unnatural coagulation, whereby they render them fitter to paſs off at their proper emunctories, inſomuch that every pulſation throws ſomething through the inteſtinal glands, which goes off by ſtool. Of this kind are all thoſe cathartics which are preſcribed in rheumatiſms, and are ſaid to purge the joints, and give eaſe in arthritic pains, as aloes, Rad. Turpethi, &c. Hence, the reaſon why carthartics of this ſort are ſo eaſily changed into the moſt efficacious alteratives, is, becauſe an alterative is a cathartic, in this ſenſe, in a lower degree, or of a more remiſs operation. Whatſoever brings ſuch particles to the ſecretory orifices as are fitted for paſſing them oftener than uſual, either by accelerating the blood's motion, or breaking it into more particles of that particular ſize and inclination, will increaſe ſecretion; according therefore to the difference of the parts, where ſuch ſecretions are inlarged, as in the glands of the inteſtines, kidnies, or ſkin, the medicines, that are inſtrumental thereto, are termed cathartics, diuretics, or diaphoretics.

It hath been a prevailing notion with ſome, that there is ſome ſpecific or elective quality in cathartics, by which ſome are ſuited to draw off and expel ſuch particular humours, and leave the reſt untouched; and upon this notion it is that they have been diſtinguiſhed by particular names expreſſive of their reſpective properties; hence one is called a *phlegmagogue*, or purger of phlegm; another, a *cholagogue*, or purger of choler; a third is called a *hydragogue*, or purger of water: for example, the particles of jalap are ſaid to attract the aqueous particles of the blood, as they paſs through the inteſtinal glands; hence jalap is called a *hydragogue*. But we cannot admit that any medicine, how efficacious or ſurpriſing ſoever in its operation, acts otherwiſe than mechanically, according to thoſe laws of motion which all other bodies are ſubject to; it acts equally on all our fluids, but that matter only is moved which is moſt eaſy to flow, and be diſcharged: and therefore when the diſcharges by ſtool diſcover an over proportion of any particular humours, the purge, to whoſe efficacy it is aſcribed, it not to be ſuppoſed to have done it by election, but that there was either a redundency of ſuch a humour, whoſe diſcharge any common irritation would occaſion, or that there was ſome peculiar aptitude from the figure and bulk of the particles of the medicine, to deterge thoſe parts where they are lodged, and incide and render their contents more fluid and fit for motion: thus, in proportion to the proximity of ſome humours to the inteſtinal tube,

tube, and the diſpoſition of the paſſages to convey them that way, they require greater or leſſer vellication, twitches or ſhakes of the fibres, from a cathartic to make them flow, and fetch them out. For this reaſon the briſker cathartics, which vellicate the membranes moſt of all, pump out, as it were, from all the meſenteric glands, and neighbouring parts, their contents; which parts, as they abound ſo much with lymphatics, and viſcid watery humours, make the diſcharges thin and watery. Thoſe, which act in a ſomewhat lower degree, yet irritate enough, and draw out a great deal of mucous and viſcid matter, which receives different names, according to the different places it came from: the former of theſe, therefore, paſs for hydragogues, and the latter for phlegmagogues and cholagogues; and in this ſenſe I wiſh to be underſtood in my ſubſequent arrangement of purgatives into different claſſes; for I believe jalap attracts the aqueous particles of the blood by no other power than the particles of any other medicine would do in the like circumſtances, that is, if they were indued with the ſame mechanical properties. Whatſoever, therefore, has the ſame properties as jalap, which, by the effects, it appears ſeveral medicines have, will purge water as much as jalap, and conſequently deſerve as much the name of a ſpecific.

Now, before I enter upon the narrations of the ſeveral claſſes of purgative medicines, it will not be amiſs to premiſe ſome obſervation that generally relate to them, and ſome particular cautions that guide to the ſucceſsful adminiſtering of them. Some purges act only by irritating the fibres, and muſcular parts of the inteſtines, and others do not act till they enter the blood veſſels, and are mixed with the maſs of blood. Some produce various violent effects, as nauſea, fainting, &c. before they purge; and theſe do diſperſe themſelves over the whole body; but others do not produce theſe effects, and therefore do not ſeem to be ſo univerſally diſperſed as the former; whence it appears that a nauſea is not neceſſarily produced by all purges, before they work.

All purges are naturally emetics, and neceſſarily become ſo, if they are given in too large a doſe; nay, the moſt mild purge, if taken in too large quantity, becomes emetic; thus oil, newly expreſſed, which is the mildeſt of all purges, if taken too liberally, provokes a vomiting.

Again, the whole human body may be depurated by the belly, and every acrid, that is able to ſtimulate, on this very account, becomes a purgative, but

opium ſtops purging, by deadening the ſenſibility of the nerves, and thereby impeding the contractile motions of the ſolids; whence there is a ſmaller expulſion of the liquids by the ſecretory and excretory veſſels. The general indication for purging, is ſome cacochymia or ill habit, that deſerves notice, not every wandering fluctuation or motion of the humours, which might be carried off eaſier by ſome other excretion, or depletion.

In preſcribing a purge, many things are to be conſidered. 1. Whether a purge is convenient, and for what perſons. 2. The different temperaments of the patients. 3. The degree of purgation neceſſary, and how often it is to be repeated. 4. The time. And, 5. The preſent ſtate of the paſſages.

Firſt, then, we are to conſider whether the ſtrength of the patient will bear it, or whether the conſtitution, the ambient air, or other circumſtances will permit. We muſt judge whether the perſon can bear purging, from the pulſe, age, ſex, temperament, habit of body, and way of living. Middle-aged perſons can bear purging beſt, infants worſt, and old age next to children; men too bear purging better than women, but there are ſome women that bear the ſtrongeſt cathartics, and are ſcarce moved by them, chiefly thoſe who labour under a ſuppreſſion of the menſes, or are dropſical: but women ought not to be purged in the time of their menſtrual flux, as the humours being thrown by revulſion on the inteſtines, will ſtop the menſes; nor are they to be purged during pregnancy, but with great diſcretion, leſt the medicine, by irritating the uterus, ſhould cauſe abortion. The ſafeſt time, in pregnant women, is from the fourth to the ſeventh month, and not before; becauſe the fætus then being ſtronger, and the womb more expanded, they are better able to reſiſt the irritation: but ſome venture to purge women at any time of their pregnancy; but this is done only with the milder purgatives, though I think clyſters generally anſwer the intention, and I am ſure are leſs dangerous. Hot and moiſt temperaments, and thoſe that are fleſhy, bear purging better than the dry and fleſhy habits. When there is too great a retention of the fæces, a purge might do great injury to the inteſtines, therefore it is proper in that caſe to prepare the way for a purge by premiſing a clyſter: but if there is little matter, and much ſtrength, as in the rheumatiſm, we may evacuate it at once, though, when the patient is weak, whether the matter be little or much, it is better to carry it off at ſeveral times, or by epicraſis, or gentle purging, than by one doſe; and the ſame is to be obſerved where the matter is very copious, and the patient

patient ſtrong. We are alſo to conſider, where the peccant matter is lodged, if in the extremities, as in the gout, or if it is viſcous and groſs, as in the viſcous aſthma, it is not haſtily to be removed by one cathartic, but by gentle doſes, or by epicraſis.

As to the ſtated time of diſeaſes, when purges are proper, if we conſider the general time or ſtate, it is beſt to purge in the declination, as alſo often in the beginning, before the diſeaſe arrives at its height, and whilſt the ſtrength permits, to take away part of the morbific matter: but if we conſider particular times, the time of remiſſion, or intermiſſion, is to be preferred for purging; but it may be proper alſo to exhibit an emetic or cathartic in the very paroxyſm, if the matter be turgid, and very viſcid, for then it will be more eaſily evacuated, than by the more gentle purgatives.

Now let us conſider what is required to the expulſion of the matter by purgation; firſt, we are to conſider whether the inteſtines are near the place that contains the noxious humour, and whether there is a communication between them: for we ought not to purge other parts through the part affected, leſt it receive further damage; not the inteſtines, by the œſophagus, becauſe the ſtomach is not their excretory paſſage, and is not accuſtomed to it; nor is it material for the proof of this argument, whether purges are given with ſucceſs in dyſenteries, where the inteſtines are corroded, becauſe the noxious humours are then in the inteſtines, or are continually coming into them: therefore it is better to throw them out ſoon, than to let them continue there with greater danger.

Again, it is required that the paſſages be open, from the mouth to the anus, which may be cloſed two different ways, by its own figure being changed; which may be done, if one part is drawn within another, as in the *iliac paſſion*; by the meſentery being ſeparated by an inflammation from any part of the inteſtines, or by a ſpaſmodic motion of the inteſtines: or, laſtly, by any matter ſtopping in the inteſtines, as when the excrements are indurated, by means of ſome glutinous matter, into a hard, and almoſt ſtony ſubſtance, as ſometimes happens in women, eſpecially when they are big with child, or when any thing hard ſtops in the *Cæcum*, cloſing up the valve there, or when a ſchirrus ariſes in the inteſtines. It is requiſite alſo that the paſſage be ſmooth, for this purpoſe nature has provided, through the whole inteſtinal tube, a ſort of ſoap, that the

fæces, being dried by the ſqueezing out of the more liquid part, may eaſily ſlide through, and not remain immovable and ſtop any where; but if that ſoap is wanting, the body is coſtive; whence a far greater force is required to protrude the fæces; therefore, in this caſe, honey, manna, oil, ſugar, &c. ſhould be taken; hence in the aphthæ, the belly, which is moſt bound at that time, is rendered lax, by glutinous clyſters of honey, ſugar, &c. The ſpiral muſcular fibres likewiſe, which incompaſs the inteſtines through their whole courſe, muſt be able to contract, and thereby urge the ſides of the veſſels towards the centre, and alſo the longitudinal fibres muſt be able to act, for no purging medicine can operate without increaſing, accelerating, and ſtrengthening theſe motions by ſtimulating them, which appears from the pains ariſing from purges. It is alſo neceſſary that the motion of all the parts ſerving to reſpiration be increaſed, for neither the fæces nor urine are naturally expelled without ſome reſpiration, as we ſee ſometimes in difficult labours, when the membranes are broke, the infant ſucks in the air, and conſequently diſcharges the fæces. We alſo obſerve, that when a perſon goes to ſtool, he makes a full inſpiration, and immediately ſhuts the *Glottis*, and the air being rarified, diſtends the lungs; they preſs the diaphragm downwards, in the mean time the ten muſcles of the abdomen contract themſelves; whence the inteſtines being preſſed, drive out the fæces; but as ſoon as the lungs are releaſed, the diaphragm recovers its tone, and returns to its place, the abdominal muſcles relax, and the ejection of the excrement ceaſes: hence we ſee it is in vain to give purges to dying perſons, for the reſpiration alſo fails at the ſame time; therefore in vain do we expect them to operate. The preſence alſo of matter in the inteſtines themſelves, and a diſpoſition of that matter to be eaſily expelled, is neceſſary.

All theſe things are required for a purge to meet with ſucceſs, and if it does not ſucceed through a defect of one of them, that defect may be remedied by proper medicines. Therefore, if the paſſage is obſtructed either by a ſchirrus or inflammation, a vein is to be opened. If the proper ſlipperineſs is wanting, it is remedied by honey, and oil, eſpecially the oil of the *Palma Chriſti*, or glutinous clyſters. If the contraction of the muſcles is deficient, it is to be reſtored by a light ſtimulus of ſeaſonable fruit; but if it ariſes from a faintneſs of the ſpirits, then cordials are of ſervice. If the transflux is hindered by cruſts growing to the inteſtines, then a bath of cold water is to be applied; and thus what uſes to be excreted by the cutaneous pores, will be determined towards

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the inteſtines; whence the cruſts will be diſſolved, and the purgation will go on well. If there is nothing in the inteſtines, there cannot be any thing drawn out of them; therefore a purge ſhould never be given to a perſon after two or three days faſting; becauſe, in this caſe, it would have no effect, on account of the weakneſs of reſpiration, and deficiency of matter. If the matter is ſo hard that it cannot be moved, it may be reſolved by a long continuance of drinking water, oil, &c.

Through the inteſtines may be expelled very different bodies, and from any part of our machine, as will evidently appear, when we come particularly to conſider what things are naturally, and preternaturally carried down to the inteſtines; for all purges diminiſh the reſiſtance in the veſſels, which are neareſt to the inteſtines; whence more fluid is drawn thither by the force of the atmoſphere, and by the contraction and elaſticity of the veſſels; but if the reſiſtance is greatly diminiſhed in the inteſtines by the repetition of violent purges, all the lymph will be drawn down to their emptied veſſels, and there will be an excretion of it; wherefore the lymph may be expelled from every part of the body by cathartics, and ſometimes in ſo great quantities as even to exceed belief. The whole man, in a ſhort time, may be purged by the anus.

All the ſeveral kinds of ſecretions and excretions may be ſo changed, either by ſtagnation or mixing, that they can by no means be diſtinguiſhed. Thus the mucus of the noſtrils, when it is firſt excreted, is a thin lymph, but in a ſhort time is ſo inſpiſſated as to become a hard cruſt, and almoſt cartilaginous. Some of theſe are driven out of the body with a much leſs force than others: for the fæces, that are left by food, are eaſily thrown off by the periſtaltic motion of the inteſtines, which is a kind of waving motion like the creeping of a worm. If this motion is inverted, it is called epiſtaltic, the conſequence of which is violent vomiting, and the contents are expelled by the natural force of the bowels, without the help of any ſtimulus: but to bring out an extravaſated liquid, there is more required, that it be drawn into the inteſtines: to do that, we muſt ſufficiently diminiſh the reſiſtance of the veſſels that the liquid may flow into them; but the reſiſtance is ſufficiently diminiſhed by any cauſe that clears and empties the veſſels; but the force of this cauſe ought to be greater than the natural force of the bowels, that it may ſtimulate the veſſels ſtrongly, and bring them to ſecretion. Therefore, as I obſerved already, a greater or leſs eaſineſs of expulſion depends entirely on the various diſtance, from the inteſtines, of the matter

matter to be expelled; thus the fæces are more eaſily moved than the pancreatic juice, and this more eaſily than the extravaſated lymph: the expelling forces, which are various, according to the various diſtance of the matter to be expelled, depend entirely upon ſome ſtimulants, and theſe ſtimulants are ſuch as may create uneaſineſs from their figure and ſolidity; thus a grain of ſand immediately excites a convulſion in the eye, by which motion the glands are compreſſed, and by that compreſſion evacuated, whence alſo an eaſy enterance to new liquid. It is the ſame with regard to purging; for example, if any one, who eats only the whiteſt bread, and is accuſtomed to go to ſtool once a day, ſhall eat the coarſer, he will then have two or three ſtools a day, and ſometimes attended with gripings, becauſe the particles of bran, which are indiſſoluble on account of their bulk and figure, vellicate the bowels, and throw them into contractions, in the ſame manner other things operate. As the degrees of difficulty and eaſineſs of expulſion depend upon the diſtance of the matter to be expelled from the inteſtines, and as the expelling forces depend upon the ſtimulants, which are to be varied according to the various diſtance of the matter to be expelled, ſo we are now led to conſider the different ſorts and kinds of matter found in the inteſtines, and from whence it comes, and the degree of force required for the expulſion; but as the matter is manifold, it thence eaſily appears, that the medicines deſtined to expell it muſt be various, and accordingly be diſtinguiſhed by different names.

The firſt claſs includes whatever is ſwallowed down, ſuch as air, which mixes itſelf with the ſaliva, the liquor of the gullet, and eſpecially with the mucus of the palate which inviſcates it; the ſpittle, mucus and other humors ſecreted from the noſtrils, fauces, palate, &c. of which there is ſuch great plenty, that ſometimes they cauſe a purging, as in the diarrhæa catarrhalis, in which caſe they ſometimes flow to the quantity of ſome pounds in twenty four hours. The ſaliva is a ſerous humour diſtilling conſtantly from the ſalival ducts, and is carried to them by the arteries: it ſerves to quench thirſt by moiſtening the lips, tongue, mouth, palate, œſophagus, and aſpera arteria: it aſſiſts in ſwallowing our food, and begins chylification in the mouth, for it partakes of the nature of the acid humour of the ſtomach, that is, it hath certain ſaline, acid particles, mingled with the ſerum, ſo that a mouthful of bread, chewed and expoſed to the ſun, will yield a ſort of chyle, and being mixed with the food in maſtication, is received with it into the ſtomach, where it mixes with the

the moiſture of the œſophagus, the lymph of the ſtomach, and the remains of former meals, and by means of the digeſtive heat and working of that bowel, it is diluted, attenuated, &c. and rendered fit to be diſtributed to thoſe paſſages of the body through which it is to flow. This homogeneous fluid or chyle is carried out of the ſtomach, partly by the muſcles which contract the abdomen; partly by the impulſe of the liver; and partly by the alternate motions of the diaphragm; and laſtly by the periſtaltic motion, or vermicular ſucceſſive contractions of the annular fibres of the ſtomach, from the upper orifice to the lower, ariſing from the ſtimulus of the chyle, by which the ſtomach is made narrower, and the chyle is forwarded to the pylorus and inteſtines, to be further perfected; when it gets into the inteſtines it is further elaborated, as well by the ferment which it carries with it out of the ſtomach, as by the inteſtinal lymph, bile, pancreatic juice, and air, all which meet in the duodenum; and being mixed with the chyle ferment together, and thereby ſtretch the coats and ſtimulate the internal ſurface of the inteſtines, and ſollicit them into alternate contractions, whereby the chyle is farther prepared, till it is thin enough to paſs through the tunica villoſa of the inteſtines, into the lacteal veſſels; while the groſſer part of the aliment continues its courſe, and becomes gradually thicker, as it advances towards the great inteſtines, and is there collected and goes by the name of fæces. The lacteal veſſels of the inteſtines are innumerable and of a particular kind, ſo ſmall that unleſs they are full of chyle, they are inviſible: they ariſe from every part of the ſmall inteſtines, and enter the great or central glands, on every ſide; but very few are found in the great inteſtines. The lacteal are veſſels of the firſt kind, in reſpect of the veſſels that are formed of theſe, united into fewer and larger pipes, which make a reſervoir or larger gland, which is the beginning of the thoracic duct, theſe are veſſels of the ſecond kind: the lacteals are placed in the bowels in the ſame degree of obliquity, reſembling the manner the ureters are inſerted into the bladder: but as the forming a juſt notion of this matter is very neceſſary to every phyſician, I ſhall here enlarge a little upon it.

Between the pylorus and the anus lies a long canal, having numerous convolutions or turnings, called the inteſtines, which fill the greateſt part of the abdomen, and are connected through their whole extent, which is ſeven or eight times as long as the perſon, to the membranous productions and continuations of the peritonæum, principally to the meſentery and meſacolon; after removing the abdominal muſcles, we find this membranous ſubſtance inveſting all the viſcera,

viſcera, as in a bag, and is called *peritonæum* from a *Greek* word, ſignifying to ſpread round, it is capable of great extenſion, as we ſee in pregnancy, dropſies, corpulency, and repletion; the peritonæum is made up of two portions; the internal is made up of true membranous lamina, which continually moiſten the abdominal viſcera by a ſerous fluid, which tranſudes by almoſt imperceptible pores, in the manner cuticular tranſpiration is performed, or as ſome will have it, by tranſudation; the external portion is a kind of fibrous apophyſis of the internal, and is called the cellular ſubſtance of the peritonæum; it forms cells expanded into very fine laminæ, and in ſome places is filled with fat like a membrana adipoſa, and is cloſely connected to the parts which form the inſide of the abdomen. It will not be amiſs to obſerve here that the abdomen, which begins immediately under the thorax, and terminates at the bottom of the pelvis of the oſſa innominata, is divided into three anterior regions, the *epigaſtric*, *umbilical*, and *hypogaſtric*; the *epigaſtric* begins at the pit of the ſtomach and ends above the navel, and is ſubdivided into three parts. The *epigaſtrium* including that ſpace which lies between the falſe ribs on both ſides, and the two *hypocondria* are the places covered by the falſe ribs. The *umbilical* begins above the navel, and ends at the *criſtæ* of the *os ilium*; this region is alſo divided into three parts, the middle is properly the *regio umbilicalis*, the two lateral called *ilia* or *flanks*. The *hypogaſtric* begins at the upper parts of the *os ilium*, and extends downwards, and is likewiſe divided into three parts, the middle is called *pubis*, and the two lateral called *inguina* or *groins*.

The *lumbar region* is the poſterior part of the abdomen, and comprehends all the ſpace which reaches from the loweſt ribs on each ſide, and the laſt vertebræ of the back to the os ſacrum, and the neighbouring parts of the oſſa ilia; the lateral parts are called the loins.

Now to return to the peritonæum, the uſes of which in general ſeem to be to line the cavity of the abdomen, to incloſe the viſcera, and ſupply them with coats, and to form productions, ligaments, folds, &c. and to keep them moiſt and uninjured by friction and motion. The inteſtines are divided into two portions, called the ſmall and great inteſtines, and are compoſed of ſeveral coats, the outermoſt is a continuation of the meſentery or duplicature of the peritonæum, its inner ſurface is cellular, and is therefore called tunica celluloſa; the ſecond coat of the inteſtines is compoſed of fleſhy muſcular fibres, made up of two plates, one external, and the other internal; the fibres of the external plate

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are thin and run longitudinal and in a ſomewhat ſlanting direction; the fibres of the internal plate are ſtrongeſt, and form ſegments of circles which unite at different diſtances. The third coat is called *nervoſa* or *vaſculoſa*; it has a particular coat, which ſerves as a baſis to ſuſtain it, made of fine ſtrong oblique fibres of the ligamentary or tendinous kind: this coat ſuſtains two reticular vaſcular ſubſtances, one arterial, and the other venal, with a great number of nervous filaments; theſe veſſels and nerves are productions of the meſenteric veſſels and nerves, this coat ſends off a great number of portions of ſepta, which contribute to the formation of the valvulæ conniventes, and ſuſtain ſeveral glandular bodies in the cavity of the inteſtines. The fourth or innermoſt coat is very ſoft, and is called *tunica villoſa*, and is ſupported by the third coat, and lines all its ſepta. The meſentery is a web which connects the inteſtines, and is divided into two portions, the firſt begins at the laſt incurvation of the duodenum, and is called the meſentery, and the other portion is called the meſocolon; between the lamiæ of the meſentery, a great number of glands are ſcattered through the cellular ſubſtance, called glandulæ conglobatæ: they ſeem to be of a cellular ſubſtance, ſurrounded by a very fine membrane or coat made up of ſecretory, excretory, and blood veſſels. But beſides the blood veſſels, we diſcover an infinite number of ſmall veſſels of another kind running from gland to gland, they are very thin and tranſparent, and have numerous valves, and go out from each gland by ramifications and form a ſmall trunk, which again ſubdivides into ramifications that enter other glands in the ſame manner, they are called lymphatics: but as they have likewiſe been obſerved to be filled with a white milky ſubſtance, called chyle, they have been called *vaſa chylifera* or *venæ lacteæ*, lacteals; and as the chyle, which they convey, cannot be impelled into them by the force of the heart and arteries, it is thought that they receive it by ſuction, therefore they go by the name of abſorbent or imbibing veſſels, which abſorb the finer part of the food, while the groſſer parts continue their courſe and become, as I before obſerved, gradually thicker, as they advance towards the great inteſtines, and are there collected, and called fæces; for there is nothing ſwallowed but leaves ſome fæces, as appears in infants that live upon milk; and in ſick perſons who take nothing but broths; for the laſt ſolids of all things are ſcarce ſeparable, and as there are atoms of different ſizes, and as no atoms can be divided, ſo they cannot be reduced by the bowels into ſuch minutiæ as to be able to enter the lacteal veſſels. Theſe particles being heaped together in the inteſtines, conſtitute the excrements, which deſcend by

the gentle and vibratory contractions of the inteſtines, and by their own weight, till they arrive at the rectum, from whence they are ejected by ſtool.

The lacteal veins have their origin in the villous coat of the inteſtines; where there orifices are ſo ſmall, as to eſcape the eyes of anatomiſts; leaving the poſterior ſurface of the villous, they paſs through the nervous and muſcular coats, and, uniting into larger canals, are diſtributed in the form of net-work in the external cellular membrane of the guts; from whence they paſs to the meſentery, and get valves, which prevent the return of any thing to the inteſtines. As often as the muſcular coat of the inteſtines is contracted, the lacteal veins, which paſs between the interſtices of its fibres, and are diſtributed in the nervous and external cellular membranes, muſt neceſſarily be compreſſed; and are relaxed and freed from this preſſure, when this coat ceaſes to contract; and by this alternate contraction and relaxation, excited by the air and the ferment, and ſtimulus of the chyle, and by the abſorption of the veſſels themſelves, the chyle enters the abſorbents to a conſiderable height; and being thus received by the open mouths of the lacteals, the chyle is, by the ſucceeding contraction of the muſcular coat of the inteſtines, which compreſs them, puſhed on towards the meſentery; as ſoon as this contraction ceaſes, the emptied lacteals being free from contraction, are, in like manner as before, filled with more chyle, which the ſucceeding contractions puſh on towards the meſentery; and the chyle is continued in motion, and circulates by the vibratory motion of the abſorbents, which is occaſioned by the irritation their coats receive from the chyle, which is puſhed on and prevented from returning by the force of new chyle, continually tranſmitted to them from the inteſtines, by the pulſation of the arteries, which run contiguous to them, by the alternate motion and ſhock of the diaphragm and periſtaltic motion of the abdominal muſcles in reſpiration; all theſe cauſes concur to puſh the chyle through the larger veſſels of the meſentery, and to carry it along with the blood to the *vena portarum*.

When the chyle, as I obſerved before, enters the inteſtines, it meets with the bile, pancreatic juice, &c. which ſerve to rarify, attenuate and prepare it a little farther. The bile is of two ſorts, the *hepatic* and the *cyſtic*; the hepatic continually flows through the *ductus choledochus* into the duodenum; but the cyſtic bile flows only from plenitude or compreſſion; the bile gives the fæces their yellow colour; when it is obſtructed, as in the jaundice, the excrements have a white colour. There is alſo in the inteſtines a ſerous humour, very much reſembling

reſembling ſpittle in tenacity, ſmell and taſte, which flows from the pancreas into the duodenum. Some ſay that the pancreas, in its natural ſtate, emits its juice to the quantity of ℥27 in twenty-four hours, and if ſtimulated, it emits ℔4: hence a reaſon may be eaſily given, why ſo great a quantity of fluids is ſometimes excreted by the inteſtines, in a diarrhæa; becauſe amongſt the reſt the pancreatic juice, which, in its ſound ſtate, would return into the blood by the lacteal veſſels and meſeraic veins, but muſt neceſſarily be thrown off by the anus, when theſe canals are obſtructed.

The pancreas has an excretory veſſel, proper to itſelf, which is inſerted obliquely into the duodenum at the ſame place with the biliary duct, there the pancreatic juice mixes with the bile and with the liquid of the inteſtinal glands, and from this mixture a fluid reſults, which is proper to ſeparate the chylous matter from the groſs part of the alimentary pulp, as it comes from the ſtomach. There is a mucous fluid, more or leſs tranſparent, continually diſcharged through a fungous granulated ſubſtance, compoſed of an infinite number of papillæ of different figures, which moiſtens the cavity of the ſmall inteſtines. The villous ſubſtance of the inner coat of the large inteſtines, is furniſhed in ſeveral places with glandular lacunæ or ſolitary glands, broader than thoſe of the ſmaller inteſtines, theſe glandular lacunæ or folliculæ are ſtarted and depreſſed in the middle, where there is a hole through which there is filtrated, into the cavity of the bowels, from the blood, brought to the glandular coats of the bowels, a kind of mucilage, which defends their internal coats from the acrimony and aſperity of the fæces; for the *fæces humanæ*, when too long confined in the body, act as a powerful ſeptic, combined of a putrid ſubſtance and an acid ſulphureous matter: this mucilage does not only defend the coats of the inteſtines from the acrid ſtimulus of the fæces, but alſo ſerves to lubricate them, and ſoften, and fit the excrements for an eaſy and free ejection: and what a great quantity of this viſcid mucus there is, may be eaſily conceived from the length of the inteſtines. When this mucus is thinned and purged off by too large doſes of reſinous medicines, then there follow ſharp pains and griping of the bowels, and at laſt dyſentery or bloody flux, or at leaſt the excrements tinged with blood.

There are alſo many things ſometimes preternaturally found in the inteſtines, which may be purged off by ſtool, as pus, which is always the effect of an inflammation, which ariſes from a ſtagnation of the arterial blood in the ſmalleſt capillary

capillary veſſels, and from the preſſure of the blood behind, the effect of which is a contrition of the ſmalleſt veſſels, and a change of the red matter, and of the veſſels themſelves, into a white matter, called pus, which may be generated in the ſpleen, liver, pancreas, inteſtines, &c. Hence we ſee why ſo great a quantity of pus may be ejected, as alſo how an empyema may be diſcharged by ſtool, becauſe the pus, lying on the diaphragm, affects the neighbouring parts, eats through and perforates the diaphragm, and then corrodes and enters the liver, or the colon. Again, the blood, which often flows out in great quantity, in dyſenteries, and after purges wrongly applied, may proceed from various outlets, two of which are principally to be noted, viz. the common duct of the liver, and the pancreatic duct; if therefore the liver has received an injury ſo as to occaſion its diſcharging blood, then the blood, flowing plentifully into the inteſtines, may occaſion a dyſentery. If the texture of the pancreas is injured, which often happens, if a cathartic is given to one that has a ſchirrous pancreas, dreadful hæmorrhages enſue: for the circulation being increaſed by the cathartic, great preſſure is made upon the veſſels ſituated near the ſchirrus, till at laſt they burſt. But beſides theſe two ducts, there are many others through which the blood may flow into the inteſtines, as a ſtomach, ſpleen, gullet, &c. Grumous blood coming from the ſtomach, is the ſign of an old ulcer, eſpecially if thoſe grumes have a convex ſurface on one ſide, which ariſes from the figure of the ſtomach, which can retain things a long time. If the ſpleen becomes ſchirrus, and inflamed, after three or four days, blood is either vomited up, or thrown down by ſtool.

A pretty large quantity of ichor may be carried down from the great quantity of lymphatics in the abdomen, and diſcharged by ſtool. When an inflammation ariſes in the lymphatic veſſels, it is attended with pain, but is not of a red colour: the finer part of the ſtagnating lymph may eaſily paſs through, whilſt the thicker becomes acrid by ſtagnating, and obtains the name of ichor, which is the cauſe of pimples and ſcabs. The lymph itſelf, and other liquors, being extravaſated, form receptacles for themſelves, or ſomewhere unnaturally collected, are, by the power of carthartics, diſcharged from the body by ſtool; for we ſee in dropſies a large quantity of lymph is ſometimes expelled by a cathartic, which is ſucceeded by a ſinking of the belly. Filaments, caruncles, and, as it were, ſmall glandules of the inner coat of the inteſtines being eaten, looſened, and abraded by acrid and venomous particles, are ſometimes carried off by ſtool.

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It is alſo to be noted, that all our veſſels, that are not yet made cartilaginous, have an indeterminate dimenſion, as we ſee in varices, aneuriſms, &c. Therefore, if there is a ſufficient cauſe, the hepatic, pancreatic, and other ducts, may be exceedingly dilated: hence, therefore, if any thing ſticks in the bowels from which theſe ducts proceed, which has remained there after a gangrene or ulcer, it may be carried through them to the inteſtines; for example, if the liver be gangrened, its diſſolved parts may paſs through the hepatic duct, being dilated. The inteſtines alſo themſelves, being greatly inflamed, may periſh by a gangrene, and be expelled by degrees. Worms alſo, and other animalculæ, are diſcharged by the anus.

We have now ſeen what matter naturally is contained, and ſupernaturally may be contained in the inteſtines, and what may be derived towards them; and as it is manifold, ſo the medicines deſtined to expel it muſt be various, and, for diſtinction ſake, have proper names appropriated to them, as *Eccoprotics*, *Phlegmagogues*, and *Hydragogues*.

Thoſe which expel the *Fæces alvi*, are called Eccoprotics, or openers of the firſt paſſages, which do not much diſturb the body in their operation, and which expel nothing, or at leaſt very little, beſides the contents of the ſtomach and inteſtines; for it is impoſſible to find any eccoprotic abſolutely ſo called, which do not draw any thing out of the inteſtinal glands beſides the fæces; for, though they are never ſo mild, they will expel ſomething along with the fæces. Now all eccoprotics may be reduced to three general claſſes.

The firſt claſs contains thoſe that lubricate the membranes of the inteſtines, and their contents, as recent oils of animals, butter, cream, fat broth, marrow, recent fat, oil expreſſed from vegetables, as olives, almonds, and eſpecially the oil of the *Palma Chriſti*. The fruit muſt be ripe, otherwiſe the oil procured from them is aſtringent; and if it is not freſh, it is acrid, and very purgative. Taken in dyſentery, they bind the belly, and are of ſervice in ſtopping the flux, by obtunding the acrimony, which vellicates the fibres of the inteſtines.

In hypochondriacal affections, the paſſages of the inteſtines are very dry and criſp, and their ſurfaces unequal, and rough; hence mild oils being applied to them, take away their criſpneſs, and corrugations, by lubricating them, and thence relax them. Alſo mild, ripe, and fat fruits, as ſweet almonds, figs, &c.

&c. all farinaceous bodies which are viſcid, all emollient decoctions of mallows, marſh-mallows, pellitory, barley, &c. all ſoaps which are either natural or artificial. The natural ſoaps are the juices of vegetables, as manna, caſſia, honey, ſugar, and ſyrups, made of theſe; artificial ſoaps, as the *Venice*, the common ſoap, &c. All theſe above mentioned eccoprotics may be uſed; alſo baths, fomentations, and clyſters, which are often of more ſervice, than if they are taken in at the mouth, eſpecially if the diſorder is ſeated in the great guts.

The uſe of theſe medicines are beneficial to thoſe bodies that are dry, hot, and atrabilious, troubled with the piles, that enjoy a plentiful perſpiration, and have ſtrong bowels; in which therefore, every liquid contained in the inteſtines, is taken into the lacteals, and abſorbed by them. Thoſe that are atrabilious, have dry lean bodies, becauſe the more fluid part of the blood is exhauſted; ſo that their blood, when taken out of the body, appears blackiſh, and the excrements grow as hard as a ſtone, through want of moiſture: and thoſe who are ſubject to the piles, have hard excrements, through want of fluid, which ſtop at the acute angle, which is formed by the colon and rectum. Hence the veins of the inteſtines, ſituated near that weight, are ſtrongly preſſed and ſtraitened; wherefore the blood, not being able to aſcend, ſo inflates and diſtends theſe veſſels, that they burſt in the places where there is leaſt reſiſtance, namely, about the orifice of the anus. Sometimes they burſt within, and then they are called the inward piles; and ſometimes without, and then are called outward. To all ſuch perſons, lubricating medicines conduce more to promote purgation, than the ſtrongeſt purges, which would only produce anxieties, ſweats, vomiting, and other dreadful ſymptoms; for the force of ſtrong, acrid purges, conſiſts in the moſt thin and volatile part; thoſe therefore, whoſe bowels are very ſtrong, drive all theſe purging parts inwards, and are taken up by the lacteals; whence the whole frame is ſtimulated and diſordered; and by this means they become diaphoretics and ſudorifics.

There is another advantage from this claſs of medicines, that the belly being moved by them, does not become bound afterwards, as is uſual upon the operation of other purges, becauſe the veſſels and glands of the inteſtines are not ſo much emptied and exhauſted by theſe, as by ſtronger purges. New-born children ought to have their bellies looſened by a ſuppoſitory of ſoap; for, if the expulſion of the fæces is attempted by a cathartic taken by the mouth, they die in convulſions.

Theſe

Theſe medicines, however, are hurtful to ſuch as are either bilious, lax, or aqueous. By the bilious I mean thoſe, who have too great a quantity of bile carried through the inteſtines, its reflux towards the liver being obſtructed. Since therefore the bile, flowing through the inteſtines, lubricates them abundantly, other lubricators ought not to be given. The lax are thoſe, whoſe ſtomachs and inteſtines being too ſmooth, become flaccid. The aqueous are thoſe, in whom the aqueous part of the blood is accumulated in every part of the body. Likewiſe all thoſe, whoſe expelling heat and perſpiration are deficient, and therefore every thing is lax in them, ought not to be moved by lubricating purges, but by the moſt acrid.

The ſecond claſs of eccoprotics are thoſe which move the too much cohering excrements by diluting them, as common water, the acidulæ, as *Spa*; the mineral, as *Aix la Chapelle*; alſo the *Bath*, &c. drank in the morning, upon an empty ſtomach, and then determined to the inteſtines, by walking gently in the cool air; alſo freſh milk drank from the cow; whey, butter-milk, broth, and all fomentations and clyſters made of them. Theſe agree wherever thoſe of the firſt claſs are beneficial, and are hurtful to the bilious and lax, and moſt of all to the aqueous, inſomuch, that if mineral waters are drank in a dropſy, ariſing from a laxity of the veſſels, it is certain death. This claſs affords excellent help in burning fevers, and all inflammatory caſes, either taken by the mouth, or by the anus.

The third claſs of eccoprotics contains thoſe, which, by lightly ſtimulating the inteſtines, expel the fæces without diſturbing the reſt of the body; theſe are called lenitives, as milk, which ſometimes growing acid in the ſtomach, becomes a purgative by its own acrimony. Whence we ſee ſheep, goats, or aſſes milk, is given to phthiſical people, to keep their bodies open. Whey has a ſaponaceous taſte, but when it turns acid, it then becomes acrid, and purges by ſtimulating, after ſlight griping; the acrimony irritates the fibres, and makes them contract, by which means the contracted parts incloſe the air, which endeavours to expand itſelf by its own elaſticity, and thereby preſſes, and greatly diſtends the fibres; whence gripes ariſe, which preſently ceaſe, when the contraction is diſſolved; and then we generally obſerve that the excrements immediately deſcend towards the anus, from the place where the ſpaſm was, and are ſoon after expelled: alſo oyſters, ſwallowed whole, gently open the belly: they have an alkaline nature, as appears from the ſalt liquor contained in their ſhells.

ſhells. All ſalted food, by the continued uſe of which, in the navy, diarrhæas frequently ariſe. All ſeaſonable fruits, without exception, excite flatuſes, ſome more, ſome leſs. The expreſſed juices of fruit, whether crude, or boiled to a ſyrup, and the parts of the fruit that are not diſſolvable, being retained in the ſtomach, from being mild become ſtimulating, and purge with griping: And thus ſometimes, in tender infants, whoſe ſtomachs are not able to diſſolve and digeſt thoſe bodies, they cauſe a dangerous purging; which ſometimes alſo ariſes from dried currants, prunes, and ſuch like; therefore, unleſs they are ſoon enough expelled, they contract a vehement ichor, and violently ſtimulate the inteſtines; whence diarrhæas ariſe. Flowers of ſome plants, as violets, roſes, peaches, either taken in powder, or in conſerves; native ſoaps, as honey, ſugar, manna, caſſia, tamarinds, robs made of the juices of ripe fruit, aloes, gum ammoniac, bdellium, ſagapenum, opopanax, myrrh, and all things of this kind, which, by their viſcid parts, lubricate the inteſtines, and, by their acrid parts, ſtimulate them; alſo native fixed ſalts, cream of tartar ℥ſs to 1 in broth; all artificial fixed ſalts, and native foſſile ſalts, as nitre; all native and artificial ſoaps, whether taken by the mouth, or applied in form of ſuppoſitory, clyſter, or fume; the beſt fume is that of tobacco, coloquintida, or both together.

Theſe three claſſes of eccoprotics agree only in a ſtuffing and infraction of the great guts, eſpecially of the colon; alſo to women of a ſpare and lean habit of body, who are apt to be coſtive, eſpecially after delivery, and often become languid and melancholy, occaſioned by labouring under a moſt obſtinate and miſerable obſtruction from an indurated matter in the colon; which is ſufficiently evident to the touch, and is ſometimes miſtaken for the placenta, or ſpleen: this matter is only to be moved by eccoprotics; and the beſt way of adminiſtering them, if ſtrong, is in form of clyſters; if purges are given to women in this caſe, dreadful ſymptoms are immediately excited, as vomitings, colic, and hyſteric paſſion. Eccoprotics are of great ſervice to melancholy artificers, ſtudious people, and in diſeaſes of the liver and ſpleen.

We come next to PHLEGMAGOGUES, or thoſe which expel the pituitous lymph out of the body by the anus. Now the pituita is a certain viſcid, tenacious matter, like the white of an egg; it often ariſes from viſcid food, where the bowels are ſo weak, that they cannot contract themſelves without ſufficient force, or where the bile, or pancreatic juice have contracted a fault, ſo that they cannot perform their office of attenuating, and preſerving the chyle from coagulation

coagulation. The pituita often ariſes from a fluid that is not pituitous, as the ſaliva, the mucus of the inteſtines, ſtomach, palate, and gullet: all which fluids are aqueous, but yet their parts eaſily coaleſce, and pituita may ariſe from them two ways, if they are deprived of their moſt fluid part by the power of heat. Thus our fluids are inſpiſſated in burning fevers; for experience teaches us, that if our fluids are expoſed to the ſame degree of heat, as that of the body infected with a burning fever, they will ſoon be inſpiſſated. The fluids alſo of our body are inſpiſſated by ſtagnation; for unleſs they are moved and agitated, they ſoon run together: the moſt liquid part being evaporated, whence inſpiſſation ariſes.

Phlegmagogues are of two ſorts: thoſe which draw down the matter, apt in its own nature to coaleſce, from the blood by the inteſtines, and thoſe which expel the viſcid matter contained in the inteſtines. Every phlegmagogue, therefore, acts either upon the inteſtines, or upon the pituita itſelf. But that it may be drawn out, it muſt be rendered fit to flow, which is done either by dividing the pituita by ſome acrid body, and at the ſame time adding ſome more fluid liquid, or by increaſing the motion of the ſolids by means of ſome ſtimulant, ſo that the pituita may be ground by them.

The *firſt* claſs of Phlegmagogues contains thoſe which draw out the pituita, by diluting it, ſuch as warm water by itſelf, or mixed with ſaponaceous bodies, as honey, manna, caſſia, *Venice* ſoap, ſaponaceous gums, as aloes, gum ammoniac, aſafætida, bdellium, galbanum, myrrh, native turpentine, &c.

The *ſecond* claſs of Phlegmagogues includes all viſcid acrids, that are not volatile, as the viſcid bodies already mentioned; alſo *elixir proprietatis* thickened with honey, *tinctura ſacra*, mild mercurials, as *mercurius dulcis*, taken without confinement, to avoid ſalivation; *mercurius ſublimatus*, taken in a ſmall quantity, as $\frac{1}{10}$ part a gr. of antimony with a very little nitre, as *antimon. diaphor.* gr. 15, all emetics, and vehemently ſtimulating medicines in ſmall doſes; alſo agaric, euphorbium, jalap, gamboge, &c.

The uſe of phlegmagogues is very neceſſary to all perſons whoſe firſt viſcera, or organs which make the chyle, are weak; as alſo in all diſeaſes that ariſe from a chyle vitiated by the ſluggiſhneſs of the bile; for when it is either ſluggiſh, or flows too ſparingly into the inteſtines, the pituita and phlegm are in a ſhort

time generated, and grow in the inteſtines; whence people afflicted in this manner become hydropical, or pituitous. Phlegmagogues, therefore, given in ſmall, and often repeated doſes, are of great benefit. They alſo agree in cold diſeaſes, ſuch as depend on an inactivity of the firſt bowels, from which two faults ariſe, viz. white tumours, called leuco-phlegmatic, and infractions of the abdomen, as in dropſy, green-ſickneſs, &c.

Phlegmagogues are of ſervice to thoſe, who have a paleneſs of the whole body, a viſcidity of the ſpittle, pancreatic and inteſtinal juices, and whoſe excrements are, as it were, covered with pituita; for the redneſs of the body depends upon the redneſs of the blood, and that on the circulation through the veſſels, eſpecially the lungs, in which the leaſt particles are violently compinged by the reſiſting force of the veſſels againſt the impelling force of the heart; whence they are formed into ſolid round moleculæ, which are therefore red: therefore if a paleneſs overſpreads the body, we know, from the nature of the diſeaſe, that the veſſels are too lax, the blood deficient, or that the heart does not contract itſelf with ſufficient force, and therefore that the power of the ſolids on the fluids is diminiſhed; for when this force ceaſes, immediately the blood grows pale, as we find by experience; for the red blood being drawn out and at reſt, ſoon grows pale, and is reſolved into a pituitous ſerum. Hence, therefore, phlegmagogues, which dilute, reſolve, and ſtimulate, are of great ſervice, becauſe they take away the defect of motion in the firſt paſſages, on which the defect of the heart depends; they are alſo good for thoſe, who, from too ſedentary a life, or too viſcid food, become pale and pituitous. The beſt method of curing theſe diſeaſes is to prepare the body for ſome days, by giving ſuch things as ſtimulate the bowels, and dilute and reſolve the pituita; and the matter being diſſolved, may then be expelled by the more acrid and ſtimulating phlegmagogues. For example, if a perſon from living on crude aliments, that are not eaſily diſſolved, is of a cold, pituitous, and ſluggiſh conſtitution, and threatens a dropſy, let him take every hour *Venice* ſoap, reduced into pills of gr. 2, and after each of theſe pills nitre gr. 10, or *Glauber*'s fixed ſalts, or fixed ſalt of tartar, or gum ammoniac, in white wine, or mint water. After ſome days let him take every evening one pill of aloes of gr. 3 to 4, and next morning a like pill with gr. ſs. or 1 of euphorbium; by this method the patient will ſoon be recovered.

We now come to thoſe medicines which not only expel the mucus, but promote a plentiful excretion of the bile, either by attenuating the hepatic blood,

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or by violently ſhaking the diaphragm and abdomen, and thereby the bile driven from the liver and gall bladder; and as the matter expelled by this means ſometimes appeared of a black colour, ſo the ancients ſuppoſed, that when it put on that appearance, it proceeded from the ſpleen, and was collected from a duſty blood, and depoſited there as in a ſink. This black matter they called *Atra Bilis*; which notion led them into a cuſtom of calling the purgers of bile by two names, viz. Cholagogues, or purgers of yellow bile, or bile in its ſound ſtate; and Melenagogues, or purgers of a melancholy humour, the dregs and recrement of the blood. But it is evident that this bile may be produced not only in the ſpleen, but alſo in other parts of the body, therefore we have thought the diviſion unneceſſary, and have included both claſſes under this head.

If the efflux of the blood from the ſpleen is hindered by the veſſels being obſtructed by any cauſe, it is coagulated, and becomes black; and if it is moved by vehement purges, having no other way to diſcharge itſelf but into the *vena porta* and liver, it is driven towards the liver, and there making an impetus, being aſſiſted by a ſtrong ſucceſſion of the whole body, and of the abdominal muſcles, which ariſes from the violent ſtimulus of the purge, it dilates the biliary veſſels, or burſts them, and thus makes its way into the inteſtines: ſuch a matter may be gathered in the liver itſelf from burſting veſſels, as alſo in the pancreas: ſuch a maſs may be conſtituted by the blood extravaſated any where in the inteſtines, and coaleſcing in the ſame place with the phlegm; but this laſt ſort may ſometimes be excreted only by the natural motion of the inteſtines, or by ſome eccoprotic medicine. The *Atra Bilis*, collected in the liver, may be expelled by a mere ſhaking of the body.

From hence we may conclude, that the *Atra Bilis* may ſometimes be brought out by a gentle cathartic, and ſometimes only by a ſtrong one, according as it is more or leſs remote from the inteſtines. If this black matter is ejected by the power of nature, without any carthartic, which ſometimes it is both upwards and downwards, then it ought not to be treated roughly, but only moved by gentle purgatives. Under this head are contained all natural ſoaps, ſuch as the juice of all ſeaſonable ripe fruit, which have a mixture of ſweet and acid, as cherries, grapes, mulberries, elder-berries, raſpberries, apples, pears, &c. theſe melt every thing that ſtops in the veſſels, and conſequently the bile, and that

ſometimes ſo vehemently and copiouſly, as to bring on a *cholera morbus*. Hitherto alſo belong caſſia, manna, honey, ſugar, tamarinds, juice of damaſk roſes, aloes, ſcammony, rhubarb, artificial ſoaps, and elixir proprietatis. Thoſe that expel the bile by violently ſhaking the diaphragm and abdominal muſcles, are all the ſtronger cathartics and emetics, as the leaves of aſarabacca, antimony, mercury, &c.

The bile ought never to be evacuated, for it never offends in quantity; and theſe medicines are to be applied in diſeaſes ariſing from obſtructions of the bile, but with ſome caution: for in the beginning of the diſeaſe we ought to abſtain from the ſtronger medicines, for they increaſe the fever, or rather the inflammation from which the fever proceeds; but the jaundice often proceeds from an infraction of the liver, by cretaceous, gypſeous, calculous, and other concretions, and ſometimes from an obſtruction of the common duct, by the ſtopping of a little ſtone, which is always accompanied with a great vomiting. The following method ſeems the beſt way of ſubduing it; take a ſmall pill every hour of *Venice* ſoap, or a ſmall quantity of aloes with honey, or hiera picra, in ſmall doſes, or *Sal Polychreſtus*, with a little honey, and drink ſome ſmall liquor, ſweetened with ſugar, honey, or ſyrup of violets, with a ſtrict diet; continue the uſe of theſe, or ſuch like, till the concretions begin to be reſolved, which for the moſt part happens in one or two months, and may be known to be effected, by the change of colour in the urine, ſtools and ſkin: then take ſtrong emetics, by which the abdomen may be violently ſhaken, and the diſſolved matter ſqueezed out; but theſe are not to be preſcribed in the beginning, leaſt by drawing out the moſt fluid part, they render the concretions more hard and fixed: When the operation of the emetic is over, let the patient take an opiate in the evening, and accuſtom himſelf to exerciſe, and eat thicker food by degrees. But the diſeaſes which ariſe from a defect of bile may be cured by adminiſtering ſuch things as are eaſily diſſolved, as ptiſans, yolks of eggs, and ſuch like, together with a pill of ſoap.

Laſtly, we come now to HYDRAGOGUES, or thoſe medicines which expel not only the bile and mucus, but alſo the ſalival inteſtinal ſerum. Now every fluid, ſecreted from the blood, which is neither fat nor red, is called ſerum; it is either concreted by the fire like the white of an egg into a hard maſs, of this kind is the ſerum of the blood properly ſo called; or not concreted, but exhales, and leaves thick fæces, but not coagulated, ſuch are ſpittle, ſweat, urine;

urine; but the ſerum which is drawn out by hydragogues, is of the latter ſort. It is called inteſtinal, becauſe it is derived into the inteſtines, either as it diſtills from the glands of the mouth, palate, and gullet, and is ſwallowed down; or is ſecreted and flows into the inteſtines, not only from the inteſtinal glands, but alſo from the glands of the liver through the hepatic duct. Now this fluid is drawn out by means of hydragogues in a much greater quantity than naturally, and is expelled by the anus. Hydragogues operate either by promoting the ſecretion of this liquid by ſtimulating the glands of the inteſtines, by ſtirring up the ſecretion of the ſaid fluid, by diſſolving the blood into parts that are not red, and by moving it more quickly when ſo diſſolved, that it may be applied in a greater quantity to the ſecretory glands of the inteſtines, or by both ways put together.

The medicines that promote the ſecretion of the liquid by ſtimulating the glands of the inteſtines, when applied to the inner membrane of the inteſtines, raiſe them up into bladders after the manner of a veſicatory, which they afterwards diſſolve by their cauſtic power, whence follow a continual dropping of the inteſtinal tears. For the whole ſurface of the body, both external and internal, abounds with veſſels containing ſerum; and if to theſe veſſels any acrid bodies are applied, which are able to diſſolve them, and at the ſame time are ſo thick, that they cannot enter them, then they will draw out that fluid: and they are called veſicatories or hydragogues, as they are applied to this or that ſurface internally or externally: Wherefore all acrid veſicatories which are ſo thick that they cannot enter the lacteal veins, become hydragogues without any exception, and the more acrid and thick they are, the ſtronger they are. Moreover the medicines of this claſs ought to have two conditions: firſt, it is neceſſary that they contain ſome thing thin, acrid, corroding and burning; Secondly, That this burning part be ſo involved in ſome gummy or reſinous body, that the whole does not exhale at once, but ſucceſſively, whence alſo it will corrode ſucceſſively.

Hydragogus agree in all diſeaſes where the ſalivoſe lymph abounds in the blood: and ſuch are all thoſe diſeaſes, in which the firſt viſcera are weak and ſtuffed up, whence the parts of the aliments cannot be ſo attenuated, as to enter into the lacteal veſſels and be mixed with the lymph; ſuch alſo are all the diſeaſes in which the contractile power of the heart and arteries is weak, whence the blood becomes too thin; for the ſtronger the force of the heart and arteries

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is, by ſo much is the blood more thick, and *vice verſa*. In robuſt day-labourers the blood is much compacted; but in tender conſtitutions and all whoſe viſcera are weak, as in leucophlegmatic, phthiſical, ſcorbutical, &c. it is quite watery.

Theſe medicines are of great ſervice in every extravaſation and ſtagnation of the humours, in all œdematous tumours and contuſions, and where a ſudden ſolution or evacuation of the fluids is required: but they are hurtful in all inflammatory caſes, whether the inflammation is in the arteries or lymphatics; therefore they are hurtful in all fevers, unleſs bleeding has preceeded; as alſo to hypocondriacal and hyſterical perſons given in any other way than as alteratives, but in very ſmall doſes, they are of wonderful ſervice.

Hydragogues eaſily cauſe a ſuper-purgation, which is of two ſorts: the firſt ſort is cauſed by medicines that are too evacuating, namely, when the velocity and tenuity of the humours are ſo increaſed by medicines, that the excretory veſſels are thereby diſtended beyond their tone, and become paralytic; whence it comes to paſs, that they cannot contract themſelves, but remain open, and conſequently the humours flow out in greater quantity than is fitting; the cure of this diſorder is beſt attempted by ſtrong aſtringent opiates, and ſpirits. The other ſort of ſuper-purgation is the ſpaſmodic, for ſpaſms give a violent ſhake, and thence the humours are expelled; this is beſt cured by mineral acids, with opiates and warm aromatics.

After taking a purge the patient is not to ſleep upon it, except it is given in a ſolid form, as bolus or pills, then we may ſleep a little after it. When the medicine begins to operate he ſhould drink weak broth or gruel; and if the purge is taken in the morning, he ſhould eat ſparingly at dinner, for the ſtomach then for want of ſpirits, and through the ſtrength of the medicine, will not digeſt ſo well: it is very frequent to give a paregoric after purging to appeaſe the tumult of the blood and ſpirits; but as all paregorics are binding, one ſhould not be too free in giving them, and in very few caſes it is proper.

CHAP. II.

Of DYSENTERIES.

THE cholera and dyſentery are moſt frequent in moiſt, hot countries: they appear commonly at the time that putrid and malignant fevers rage, and ſeem to be a particular determination of the corrupted humours to the inteſtines; if the *primæ viæ* give way, then a cholera or flux enſues; but if the corrupted humours are retained and carried into the habit of the body, they occaſion an intermitting, remitting, continued, putrid, malignant, &c. fever.

Dyſenteries are of diverſe kinds, according to the diverſity of excrements, ſome bilious, ſome ſerous, pituitous, purulent, &c. There is ſometimes diſcharged, by the anus, in dyſenteries, an ichor, like that of ſores, which very probably conſiſts of the ſerum of the blood, tinged with a ſmall quantity of putrid red globules. The inteſtines are the firſt part of the human body that becomes putrid, owing to the obſtructed fæces and air, contained in the *primæ viæ*, both which forward putrefaction. Next to the abdominal viſcera and adjacent parts, the lungs are ſooneſt tainted, occaſioned by the air ſtagnating in the veſiculæ bronchiales, and perſpirable matter remaining in them, which act as a ferment and haſten putrefaction; accordingly we ſee that in moſt dyſenteries, and other putrid diſeaſes, for the moſt part, ſome degree of aſthma attends them: but tho' the humours are much diſpoſed to putrefaction; yet we are not to uſe any acid anti-ſeptics, as fruit, for the bowels are too much relaxed, and in too tender a ſtate to bear any ſharp, cold, or flatulent aliment; therefore in the cure of fluxes fruit muſt be abſtained from.

The ſure diganoſtics of a dyſentery are large bilious ſtools; a *teneſmus*, the conſequence of which is a falling down of the *rectum*; and *gripes*, which occaſion a ſtrangury. The ſtools are at firſt, thin, ſmall, ſlimy, frothy, and frequent, owing to the irritation and relaxed ſtate of the bowels; and generally in the beginning there is a little blood mixed with the fæces, occaſioned by a rupture of ſome of the ſmall veſſels in the *rectum*. If the ſtools are moſtly bloody, then the diſtemper is called a bloody flux. The patient complains of a ſenſe of oppreſſion and nauſea at his ſtomach, indigeſtion, and the food turns ſour in his ſtomach; the fever that attends dyſenteries, is various, ſometimes high,

high, ſometimes low, but moſt commonly of the low malignant kind, eſpecially if the dyſentery is contagious. In the advanced ſtate of the flux, a *lientery* comes on, then the aliment paſſes through indigeſted; and the villous coat of the inteſtines is at length, by the putrid acrimony, abraded and voided by ſtool. The fæces have from the beginning a very offenſive ſmell, but after the mortification begins, they are highly contagious. Spaſms occupy different parts of the inteſtines and occaſion exquiſite pain, and the more frequent the borborygmi are, the leſs the patient is tortured with ſpaſmodic pains; but as the ſtools, which are very frequent, are always preceeded by ſharp griping pains, ſo the patient enjoys little eaſe all the time, unleſs when the pain is quieted by opiates, fomentations, &c. If there is a total proſtration of ſtrength, a low and malignant fever, ſore throat, aphthæ, involuntary and cadaverous ſtools, and a ceſſation of pain, then the gangrene is begun; and if a hiccup is alſo preſent, we may conclude that the bowels are in a ſtate of mortification.

In the cure of a dyſentery, if there is a *plethora*, hæmorrhage, or any inflammatory ſymptoms, you muſt begin with bleeding; then the patient ought to take gr. 20 *pulv. Ipecac.* divided into four equal parts, taking one paper every two hours, till the whole is conſumed. Some uſe the *vitrum ceratum antimonii*, but the roughneſs and uncertain operation of that medicine, has prevented it from coming into general uſe: after the operation of the vomit, the patient ſhould take a bolus of rhubarb ℈1, ſpec. aromatic gr. 4, ſyr. e meconio q. ſ. or an infuſion of ſena with emetic tartar; next day give gr. 4 of emetic tartar, and repeat the foregoing bolus, the next night we ſhould give ℈1 of theriac. androm. and gr. ½ of emetic tartar, or gr. 10 of the ſaponaceous pill with gr. 3 of ipecacuanha: when the paſſages are ſufficiently cleared, mild bitters ought to be given as *infuſum amarum ſimplex*, chamomele tea, interpoſing now and then, as ſymptoms indicate, a gentle emetic or infuſion of ſena with emetic tartar, or *infuſum amarum purgans*. The belly ſhould be often fomented, from the beginning, and then wrapped up in flannels; if the pain is fixed and does not yield to proper evacuations, then a warm plaſter or bliſter is to be applied to the part.

When the diſeaſe has been of ſome ſtanding, ſo that the bowels are much relaxed, and the ſtrength much impaired, even then we ſhould begin with an emetic, and after its operation give a gentle doſe of rhubarb, and at night gr. 10 of pil. ſapon. with gr. ½ or 1 of emetic tartar; next day give ipecacuanha or rhubarb and mild aſtringents, with aſtringent glyſters now and then. The

bark

bark now in ſmall quantities may be ſafely ventured upon, beginning firſt with the volatile tincture. But if the malignant fever, ſore throat, *aphthæ*, *petechiæ*, and involuntary ſtools come on, then the caſe is very bad, and ſcarce admits of a cure; all then that remains to be done is to run to the free uſe of the bark with camphor, vinum antimon. &c. keeping up at the ſame time the *vis vitæ*, by means of cordials. When the patient gets a little ſtrength, then we ſhould give a gentle doſe of rhubarb, which is occaſionally to be repeated, provided the patient lives to take it, which there is little reaſon to expect.

When the patient gets through this dangerous illneſs, he ought to prevent a relapſe, and recover his loſt ſtrength, by the free uſe of the bark with camphor, lime-water, chamomele tea, cold bath, gentle exerciſe, &c.

CHAP. III.

DROPSY.

UPON the internal ſurfaces of the cavities of the body, there are exhaling arteries, which perpetually throw out a fine fluid to moiſten and lubricate the parts; theſe arteries correſpond with the arteries that open upon the ſurface of the body, and diſcharge that ſubtil fluid, called *ſanctorian* perſpiration, the nature of which we have already fully taken notice of. This acrid fluid which the internal exhaling veſſels throw out, is in a great meaſure, in a healthy ſtate, abſorbed by bibulous veins, whoſe exiſtence is proved, not only by no liquors being collected in theſe cavities, in a ſtate of health, but alſo by anatomical injections. Theſe abſorbent veins, which like thoſe of the abſorbent lymphatics, have no valves, take up the arterial moiſture in the ſame manner as the other abſorbents, and convey it to the ſanguiferous veins into which they terminate.

Some anatomiſts deny that there are any exhaling arteries; and to account for the moiſture and rorid dew that is found upon all the internal cavities of the body, they ſay that it is lodged there by means of tranſudation: but we can ſee no abſurdity in ſuppoſing veſſels appropriated to that uſe, and that even tranſudation itſelf is performed by means of theſe veſſels; however that be, we leave the learned and more experienced anatomiſts to determine. Certain it is, whatever way this moiſture comes, there are abſorbent veſſels that take it up:

this abſorption in the cavities of the abdomen and thorax is greatly promoted by the alternate preſſure of the muſcles concerned in reſpiration; and the muſcles in voluntary motion, employed in all kinds of exerciſe and labour, by accelerating the motion of the fluids in the abſorbent veſſels, enable them to imbibe more copiouſly. Hence we ſee the reaſon why animals that move little are oppreſſed with fat, while thoſe that are kept at hard labour are very lean. In the former, the abſorbent veins of the fatty cells very ſlowly imbibe the oily matter depoſited there; becauſe they are deprived of the alternate preſſure of the muſcles of voluntary motion to forward the contained fluid to the larger veins. In the latter, the abſorption from thoſe cells, is not only more increaſed by the various and continually repeated preſſures of the acting muſcles, but likewiſe the body being, by much exerciſe, in ſome meaſure, exhauſted of fluids, the veins imbibe more greedily, while the exhaling arteries pour forth their liquor more ſparingly.

If the exhaling arteries of any cavity throw out too much, or if the abſorbent power of the veins be weakened, or if both theſe happentoge ther, a watery fluid will be collected in it; and in this way are produced all the different ſpecies of the dropſy, as the *anaſarcous* or *leucophlegmatic*, *œdematous*, and other dropſical ſwellings, the *aſcites*, *tympany*, *hydrocle*, *hydrops pectoris*, *bronchocele*, &c. when the blood is thin and watery, and the veſſels weak, the anaſarcous, œdematous, and other dropſical ſwellings are common; for as the bibulous veins can only take up fluids in proportion to the depletion they ſuffer by means of their own vibratory contractions, and alternate compreſſion of the neighbouring arteries and muſcles; their abſorbing power muſt neceſſarily be leſſened in a lax ſtate of the fibres, where thoſe cauſes are much weakened.

Further, while the redundance of a watery fluid in the blood increaſes the exhalation by the ſmall arteries, it leſſens the imbibition by the veins, for the ſame reaſon that aſhes, ſugar, or ſalt, when moiſtened, attract the watery particles of air leſs ſtrongly than when they are dry.

Again, although there be little or no fault in the blood itſelf, yet if it's return from any part to the heart be much retarded, a dropſy of that part will ſoon follow; becauſe the fluids taken up by the abſorbents, will ſhortly, and not without difficulty, be received into the larger ſanguiferous veins, and as we have juſt now obſerved, their abſorption muſt be in proportion to their depletion.

Hence

Hence we ſee why ſchirrous tumours, ligatures, and whatever compreſſes the veins, bring on dropſical ſwellings. Hence we ſee that a redundancy of aqueous ſerum is common to every ſpecies of dropſy. This aqueous ſerum either burſts its veſſels, and is lodged in the cavities of the body, or by ſtagnation in any part diſtends the veſſels and forms a ſwelling. A dropſy therefore muſt have for its cauſe a defect of the vital ſtrength to carry on the circulation, or an obſtruction of the veſſels from compreſſion or rupture, or too great tenacity of the fluids.

The ſeat of the *leucophlegmatia* is in the adipous, or rather reticular or cellular membrane, which, as I have already mentioned, lies between the membranes of the body and the muſcles: when the lymph is thus taken, or diffuſed through the whole ſub-cutaneous fat, then there is a white ſwelling over all the body; this dropſy alſo affects the abdomen, ſcrotum, &c.

The *Aſcites* is formed either by water or ſeroſities, extravaſated between the tendons of the tranſverſe muſcles of the abdomen and peritonæum, and by ſeparating them, form a ſwelling; ſometimes the ſeroſities being collected, ſtagnate, and form to themſelves a large receptacle in the duplicature of the peritonæum, in the cavity of the glands, or in the veſſels contained in the abdomen, but moſt commonly in the wide cavity of the abdomen itſelf; then the belly is ſometimes ſo filled, that the fluctuation of the water may be eaſily perceived upon moving the body.

The *Tympany* is of more ſorts than one; ſometimes the confined vapour, ariſing from water, pus, ichor, and air pent up and putrified by heat, rarifies, ſwells, and bloats up the abdomen, which gives a hollow ſound upon being ſtruck; if this matter or rarified vapours when let out, are extreamly fetid, it is a ſign of ſome mortified bowel; yet ſometimes it happens without any putrefaction, that an elaſtic vapour ingendered in the abdomen, and not finding any vent, puſhes forward and bloats up the integuments by its expanſive force; and this vapour is not pent up in the cavity of the belly, but in the very inteſtines, which it ſtretches to ſuch a pitch as to deſtroy their contractile power, then their cavity is ſometimes widened to an almoſt incredible degree.

There is no ſpecies of dropſy worſe than that of the *ovaria* in women, for theſe organs firſt grow ſchirrous, then they are inflamed, and at length gangrened; they likewiſe ſwell to a vaſt ſize, being gradually ſtretched by the

juices in iſſuing out of their burſted ſerolymphatics, which are very numerous. Barren women, and thoſe advanced in years, after their menſtrual purgations ceaſe, are moſt ſubject to this ſpecies of dropſy, which is never cured, and very difficult it is to diſtinguiſh it from the aſcites. Sometimes the internal orifice of the womb is cloſely ſhut up, and ſo much water collected in it's very cavity, that the belly is diſtended like one labouring under an aſcites, which it is very difficult to diſtinguiſh from a true one; this ſpecies of dropſy is alſo difficultly known, by reaſon of the fallacious ſigns of pregnancy that attend it.

The *hydrocephalus*, or dropſy of the head, is a collection of water either between the external integuments, between them and the cranium, between the cranium and the membranes of the brain, between theſe membranes and their duplicatures, between theſe and the brain, between the foldings of the brain, or in its cavities or ventricles.

There is a dropſy of the *thorax*, from a collection of ſerum from various parts; the ſymptoms are nearly like thoſe of an *empyema*, but a due attention to the antecedent cauſes diſcovers their difference; for the empyema, or collection of pus in the cheſt, is always preceeded by an inflammation, either of the lungs, pleura, diaphragm, mediaſtinum, or pericardium; but a dropſy may be without any of theſe antecedent cauſes.

The lungs too are ſubject to a dropſical collection in their large ſinuſes. This is called the *hydatites*, or dropſy of the lungs; it is difficult to be known or cured, becauſe the ſymptoms are ſo like thoſe of aſthmas ariſing from other cauſes.

There ſometimes is a watery ſwelling in the throat like a rupture, called a *bronchocele*, occaſioned by the ſerum collected and ſtagnating in the interior and conſpicuous part of the aſpera arteria; this ſpecies of dropſy is eaſily known.

When the ſcrotum is the chief ſeat of this complaint, it is called *hydrocele*, or dropſy of the teſticles, which is known by feeling, by their tranſparency, by retaining the impreſſion of the finger, from a diſappearing of a preceding aſcites or tympany, &c.

The farther effects and progreſs of this diſeaſe, are ſwelling of the feet, eſpecially towards evening, this ſwelling increaſes in bulk and aſcends to the belly; then

then follows a difficulty of breathing, drought, heavineſs, ſenſe of weight, numbneſs, coſtiveneſs, ſmall diſcharge of urine, ſlow fever, no ſweat, a leanneſs, which increaſes with the ſwelling; then water appears collected in the thighs, ſcrotum, &c. between the ſkin of the abdomen, and watery bladders, ſtagnating, by the heat of the body, putrify and contract an acrimony, which occaſions ulcers, gangrenes, bleedings at the noſe, an *exomphalos*, or a kind of rupture or protuberance of the navel, a ſphacelus, and at laſt, death.

From what has been ſaid we diſcover that dropſies are produced by all cauſes that reſtrain the ſerous liquids from being reabſorbed, and carried back by the bibulous veins, and that force either the liquids to ſtagnate in the extended veſſels, or break them, and diſcharge themſelves between the membranes; or the abſorbent veins may be ſo greatly obſtructed, and the fluids, already depoſited in their cavities, ſo little moved, that they are neither exhaled by the arteries, nor reabſorbed by the veins.

Theſe cauſes may either be hereditary, or brought on by drinking too much cold water when hot, by acute febrile diſeaſes, bloody flux of long continuance proceeding from the ſpleen, all obſtinate obſtructions of the bowels, as a ſchirrus of the liver, ſpleen, pancreas, meſentry, kidnies, womb, or inteſtines; from a jaundice, a violent and long continued quartan ague, lientery, diarrhæa, bloody flux, cœliac paſſion, empyema, conſumption, gout; all too large evacuations, drinking of ſharp ſtrong fermented liquors, tough and hard to be digeſted aliment, melancholy, ſcurvy, nervous diſeaſes, gravel and ſtone, &c.

Therefore before we attempt the cure of the dropſy, we ought to make diligent ſearch to find out the cauſe of it. The general curative indications, are to procure a free circulation by evacuating the ſerum, whether ſtagnating or extravaſated in the cavities of the body, and by opening the obſtructions of the viſcera, and laſtly, to corroborate and ſtrengthen the ſolids, and thereby reſtore the regular circulation of the blood, and the due ſecretion of the animal æther. If the dropſy is cold, and obſtructions are formed by the ſluggiſhneſs of the fluids, and an inſufficient attrition of the ſolids, to attenuate and reſolve them; then we ought to preſcribe ſtrengthening, ſtimulating, and deterging medicines, as cordial draughts of warm aromatic, eſſential oils, alkaline ſalts, both volatile and fixed, but chiefly fixed, and above all preparations of mercury and antimony, with friction, exerciſe, and the warm bath: but if the patient is hot

and

and feveriſh, with troubleſome drought, then it will be adviſeable to give grateful acid cordials, and the gentleſt aromatics.

From what we have already ſaid, it appears in what manner diaphoretics and purgatives carry off the ſtagnating waters in every ſpecies of dropſy; ſince, by the diſcharges they make by the kidnies and inteſtines, they not only leſſen the quantity of watery fluid in the blood, but alſo by their ſtimulus increaſe the force of the circulation; the exhalation by the arteries muſt be leſſened, at the ſame time that the imbibition by the veins is increaſed. The purges given in dropſies ſhould be both ſtrong and often repeated; they commonly anſwer beſt when exhibited in a liquid form, whereas dry purges are often, as it were, buried in a tough ſlimy matter, with which the inteſtines greatly abound; but at the ſame time we muſt be very careful to conſider what evacuations the patient is able to bear: for when he is weak violent purges are very prejudicial; and the more the ſeroſities are drained out of the inteſtines, the greater quantity flows into the belly: as ſoon as this is obſerved to happen, the phyſician ought to deſiſt, and try to carry off the redundant water by the urinary paſſages: but all diuretics, even ſuch as are eſteemed the moſt powerful, are of uncertain effect in theſe caſes; for thoſe which anſwer in one patient fail in another; wherefore various ſorts are to be tried; but generally ſpeaking thoſe in which ſquills enter are the moſt efficacious. It will perhaps ſeem uncommon and dangerous to order narcotics in this diſeaſe, but they are ſo uſeful that ſometimes they may be placed among diuretics; for in caſe of great pain they often promote a diſcharge of urine, by relaxing the fibres of the reinal ducts, which are always conſtringed by pain. The waters may be diſſipated by heat, therefore we ought not to neglect the uſe of diaphoretics, but give a bolus every night to procure ſweat; for many have been cured of dropſies by profuſe ſweating.

But nothing is of ſuch admirable uſe in this diſeaſe as mercurial and antimonial emetics, which not only reſolve the tough fluids, and open obſtructions, but by their ſtimulus drive on the ſtagnating matter, and increaſe the force of the circulation. They ought to be ſtrong and often repeated, without any long intervals between each, otherwiſe we open the paſſages and fetch out nothing; we may give gr. 10 of *emetic tartar* every other day. Dr. *Sydenham* uſed to give ℥ſs of an infuſion of *crocus metallorum* every day, for three days together. Theſe emetics operate both by vomit and ſtool, and take off the

conſtriction

conſtriction of the other reinal veſſels, and thereby obtain a free and plentiful diſcharge of urine; and when the operation is over, the patient ought to go to bed and take a warm cordial diaphoretic, and keep warm, and by doing ſo he will procure a plentiful ſweat; but this method is to be followed only in the beginning, before the waters are yet let looſe into the cavity. Some have cured themſelves of dropſies by abſtaining from all kinds of drink for a long time together, and living upon biſcuit with a little ſalt, with a ſpoonfull of mountain wine or canary, now and then: they delude the draught with a morſel of bread dipt in brandy and kept in the mouth, whereby the glands of the mouth are kept open; the drought may be in ſome degree palliated, by waſhing the mouth and throat with a little juice of ſour apples and lemons, and by ſwallowing now and then a little of it; but ſurely this method of cure is very difficult to be ſtrictly purſued, nevertheleſs we ought by all means to preſcribe dry aliment, and as little drink as poſſible, and that of the moſt generous kind. Gentle exerciſe and change of air are of great ſervice.

The ſecond intention, viz. to corroborate and ſtrengthen the debilitated ſtate of the viſcera, to reſtore the vital ſtrength, and a due and regular circulation, is anſwered chiefly by chalybeate wines, ſteel in ſubſtance, the bark, all gentle aſtringent ſtrengtheners, ſtimulating and ſtrengthening cordials prepared of warm aromatics, ſalts and oils. In the *leucophlegmatia* an inciſion ought to be made in the inſide of the leg, about two fingers breadth above the ancle, or between the toes; and the inciſion ought to reach to the celular membrane. This ſerves as a drain for the water, which ſhould run for ſeveral days; during this time, let the leg be fomented with a decoction of emollient and warm herbs and camphorated ſpirit of wine; this will alſo be found ſerviceable in the aſcites, and will ſometimes effect an abſolute cure, by drawing off an incredible quantity of water for ſeveral days together. Care however muſt be taken, not only in this particular inciſion, but in all others that are made in any part of the body, for drawing off the waters, not to over exhauſt the patient's ſtrength, which is as much effected by this evacuation, as if the ſame quantity of blood was drawn out; wherefore the patient is to be ſupported, by all poſſible means, leſt what was intended for a cure ſhould haſten death. Yet it is aſtoniſhing how great a quantity of water hydropics ſometimes can bear to loſe, in this manner, with eaſe and benefit. After the inciſion is made and fomentations applied to the part, let a ſtrong infuſion of bitter herbs, as *Roman* wormwood, centaury

centaury, gentian, leſſer cardamom ſeeds, &c. with chalybeate wine, be given twice every day, with the following draught. ℞ *Oxym. ſcillit.* ʒſs, *aq. cinnam. ſimp.* ℥ı, *ſpt. lavend. c. ſyr. e cort. aurant.* āā ʒı, *m. f. hauſtus.* And as ſoon as the patient's ſtrength will bear it, give ſtrong cathartics, &c.

The *Aſcites* is always a dreadful diſeaſe wherever its ſeat is. It is extremely material in this caſe to conſider what evacuations the patient is able to bear: if the belly cannot be drained of its load either by inciſions, made in the legs, iſſues, ſeatons, cauſtics, bliſters, purges, &c. then, if the cauſe of the dropſy be recent, and come on ſuddenly from an external cauſe, the patient young, and in full vigour, the bowels ſound, and not ill affected with any other diſeaſe, the waters not yet putrified, nor ſtagnating long in the places, then we may eaſe the patient by tapping; but if there is a diſeaſe of the liver, abſceſs of the ſtomach, bad habit, &c. there is little or no reaſon to hope that the operation will be attended with ſucceſs; on the contrary, it will only haſten death, and bring blame and reproach on the operator or phyſician; therefore it ought not to be attempted. The dropſy ſometimes returns, though the operation has been performed with all poſſible prudence and precaution; yet, for all that, a high value ought to be put upon the diſcovery, by means whereof many lives have been prolonged for ſeveral years, and not only made tolerable eaſy, but ſometimes comfortable. The water ought to be ſlowly evacuated, and, while it is iſſuing out, the belly ſhould be preſſed hard with both hands, from the upper part downwards, and after the water is all come away, the belly ſhould be ſwathed with a bandage, with a piece of flannel, firſt dipt in ſpirit of wine, and laid on the abdomen.

A *Tympany* is cured by the ſame methods and means. If it took its riſe from the rarified ſteams of extravaſated and putrified humours, then it is removed by the removal of the cauſe. This ſpecies of dropſy is to be treated with moderate cathartics, frequently given, and carminatives, to expel the wind, together with diet of eaſy digeſtion, with bodily exerciſe, large clyſters of warm water, &c. *Celſus* adviſes to make ulcers in ſeveral parts of the belly with red hot iron, and keep them running a good while; but if this operation appears cruel, then uſe bliſters, which ought to be often repeated.

The dropſy in the *Ovaria* is rarely cured, but the dropſy in the womb is cured by fomentations, vapours, and uterine medicines.

The

The *Hydrocephalus* is cured by gentle cauteries, warm diſcutiating cataplaſms, trepanning, exhibiting hydragogues, and corroboratives; but if the water is collected in the foldings or ſinuſſes of the brain, there is no cure. The dropſy of the *cheſt* is cured by the operation of the paracenteſis, together with the uſe of proper medicines that are contrary to the cauſe, and able to remove it.

The *Hydatides* is very difficult to be known and cured; but the *bronchocele* is cured by puncture and diſcutients, as the cicuta, and by deriving the humour from the part affected.

The *Hydrocele* is cured by powerful diſcutients, and at the ſame time ſtrengthening medicines applied to the ſcrotum, by cauſtics, or by procuring a laudable ſuppuration.

SIMPLICIA.

FOLIA.

SENA. D. ℈1 to 31 in ſubſtance, and 33 or 4 in infuſion.

Is brought from *Perſia*, *Syria*, and *Arabia*; has a lively, yellow, green colour, a faint ſmell, ſubacid, bitter, nauſeous taſte; is a uſeful cathartic; operates mildly and effectually; it gripes, and purges leſs when exhibited by itſelf, or in infuſion made in a very ſmall quantity of fluid, than when diluted by a large portion of ſuitable menſtruum, or divided by fixed alkaline ſalts, or the like. It ſometimes nauſeates the ſtomach, which is prevented by the addition of a little cinnamon water.

LINUM CATHARTICUM. *Purging Flax.*

An infuſion in water or whey, of a handful of the freſh leaves, or 31 of them in ſubſtance, purges, without inconvenience, viſcid and watery humours from the moſt remote lodgments. Some are fond of them in rheumatiſms, gout, &c.

AGARICUS. *Agaric.*

Is a fungous growing upon old larch trees; very light, and of a ſnow white colour; has a ſweet taſte at firſt, which ſoon turns to an acrid, nauſeous bitter;

it operates exceeding ſlowly, and often occaſions nauſea, vomiting, and ſometimes exceſſive tormina of the bowels, inſomuch that the preſent practice has almoſt laid it aſide. There is an *Agaric* found on different trees in *England*, and is called the *Female Agaric*; is heavier than the other; of a duſky colour; and has a mucilaginous taſte, void of bitterneſs. It is ſaid to be a good ſtyptic, and not only reſtrains venal, but arterial hæmorrhages, without the aſſiſtance of ligatures; for this purpoſe it is beat ſoft, and applied to the wound.

Rosa Damascena. *Damaſk Roſe.* D. ʒſs to 2.

Has a pleaſant ſmell, and bitter ſubacrid taſte; and is an agreeable cordial purgative.

Viola. *Violet.*

Has a very pleaſant ſmell; a deep purple blue colour, which it imparts along with its virtues to aqueous liquors. The ſyrup made from it is an agreeable and uſeful laxative for children.

FRUCTUS.

Casia Fistularis. D. ℈i to ʒi.

Is brought from the *Indies*, and is a kind of fruit reſembling a ſauſage, with a hard brown bark. The inſide is filled with a ſoft black pulp, of a ſweet taſte, with ſome degree of acrimony; it diſſolves in aqueous liquors, and rectified ſpirit; is a gentle laxative, and frequently exhibited in coſtive habits; in large doſes it ſometimes nauſeates the ſtomach, gripes, and produces flatulencies in the bowels; but theſe effects may be prevented by the addition of aromatics. It is good in painful tenſions of the belly, from an imprudent uſe of antimonials. The purgative virtue of caſia is remarkably promoted by manna; for a mixture of ʒſs of caſia and ʒ2 of manna purges as much as ʒi2 of caſia, or ℥2 of manna alone. It turns the urine green, and, where a large quantity has been given, black.

Pruna. *Prune.*

Damaſcens and common prunes abate heat, gently looſen the belly, by lubricating the paſſages, and ſoftening the excrements; are good in coſtive habits, accom-

accompanied with heat or irritation. If they are not of themſelves ſtrong enough, their effects may be promoted by a little rhubarb, to which may be added ſome carminative ingredient to prevent their occaſioning flatulencies.—Prunellas have ſcarce any laxative quality, but are mild and grateful refrigerants, and are good for hydropic people to keep in their mouth.

Tamarindus. *Tamarind.*

Is the fruit of a tree growing in the *Indies*; it is a pod reſembling a bean cod, containing ſome hard ſeeds, and a dark-coloured viſcid pulp; of a pleaſant acid taſte, whereby it quenches thirſt, allays immoderate heat, increaſes the action of purgative ſweets, as caſia, manna, &c. and leſſens the power of reſinous cathartics; is gently laxative, and good in burning fevers to moiſten the mouth.

Colocynthis. *Bitter Apple.*

Grows in *Turkey*; is about the ſize of an orange; is light, white and ſpungy, of an extreme bitter, nauſeous and acrid taſte; is a powerful and very violent purge; and the beſt way of abating its violence is to enlarge its volume, by triturating it with ſugar, teſtaceous ſubſtances, &c. which keep it from cohering ſo ſtrongly to the coats of the inteſtines, as to irritate, inflame, and corrode them. Some have recommended it as an extraordinary alterative, in obſtinate, chronical caſes.

Spina Cervina. *Buck Thorn.*

The berries have a faint diſagreeable ſmell, and nauſeous bitter taſte; are a good cathartic, and celebrated in dropſies, rheumatiſms, and gout.

Alöe. *Aloes.* D. gr. 5 to 31.

There are three ſorts of aloes kept in the ſhops, the *ſocotorine*, *hepatic*, and *cabaline*; the ſocotrine is the fineſt, has a ſtrong aromatic ſmell, and bitter unpleaſant taſte. All the ſorts of aloes diſſolve in ſpirit or wine, and, by the aſſiſtance of heat, in water. Aloes is a ſtimulating, cathartic bitter; if given in large doſes ſo as to purge effectually, it often occaſions an irritation about the anus, and ſometimes a diſcharge of blood: ſmall doſes, frequently repeated, cleanſe the *primæ viæ*, attenuate and diſlodge viſcid juices in the remoter

parts; quicken the circulation; promote the uterine and hæmorrhoidal fluxes; are particularly ſerviceable to perſons of a phlegmatic temperament, and ſedentary life, and where the ſtomach is oppreſſed and weakened; but it proves injurious in dry bilious habits, by heating the blood, and inflaming the bowels; but even in this caſe, if joined with nitre, it has no bad effects, and proves an excellent purger of bile, and is capable of removing, if duly continued, very obſtinate obſtructions, as *Gout*, *Rheumatiſm*, &c. In thin, hectic habits, it is bad, if not mixed with ſalt of tartar or nitre. It is alſo very good in ſteel courſes, and is ſaid to kill worms. There are in the ſhops the *Gummi & Reſina Aloës*, *Gum and Reſin of Aloes*. The gum is ſomewhat leſs purgative, conſequently leſs diſagreeable than the crude juice, and ſeems to be the only part intended for uſe. The reſin is prepared by a further purification by a ſolution in ſpirit of wine. Some have denied that it has any purgative virtue at all, while others aſcribe an aſtringent quality to it. Certain however it is, that the pure reſin is leſs diſagreeable, and leſs purgative than the gum.

Manna.

Is the juice of certain trees growing abroad, of a white, or pale yellow colour; has a ſweet taſte; is a mild and agreeable laxative; ſometimes it has been found to act a little unkindly, but that is prevented by the addition of a grateful warm aromatic. It operates ſo very weakly, as ſeldom to be preſcribed as a cathartic alone, but always has caſia, ſalts, rhubarb, &c. joined to it. By adding gr. 1 of emetic tartar to it, and repeating the doſe, it plentifully purges bile without uneaſineſs, gripes, or nauſea.

RADICES, &c.

Rhabarbarum. *Rhubarb.* D. gr. 10 to 31.

Is brought from *Turkey*, *Ruſſia*, &c. is a mild cathartic, and has alſo an aſtringent quality, by which it ſtrengthens the bowels, and tone of the ſtomach, is good in diarrhæas, and all diſorders from a laxity of the fibres. In ſubſtance it operates more powerfully as a cathartic, than any of the preparations of it. The watery tincture purges more than the ſpirituous, but the latter contains more of the aromatic aſtringent, and corroborant virtues. Rhubarb is a good purger of choler, and is recommended in the jaundice, and nephritic pains; purges

purges crudities in the bowels of children. *Rhabarbari Torrefactio, Toasting of Rhubarb*, renders it less purgative.

Turpethum. *Turbith.*

Brought from the *Indies*, is brown on the outside, and white within; has a sweet taste, which, upon chewing, becomes acrid, pungent and nauseous; is cathartic, though neither safe nor certain.

Helleborus. *Hellebore.* D. gr. 15 to ℈1.

There are two sorts of hellebore, the black and the white. They have a nauseous, bitter, and acrid taste. The white, formerly, was reckoned mortal, and was not ventured upon internally; but modern practice has found very good effects from it in obstinate maniacal cases. The black is by much the mildest, and is used in the like intentions. It is a wonderful alterative and sudorific, if used with judgment; attenuates viscid humours, promotes the uterine and urinary discharges, and opens inveterate obstructions of the remoter glands; often proves a very powerful emmenagogue in plethoric habits, where steel is ineffectual and improper; and is of great service in all nervous diseases. *Extractum radicis hellebori nigri, Extract of Black Hellebore*, is made with water, and purges considerably with less violence than the crude root, and is perhaps one of the best preparations of hellebore, when intended to act only as a cathartic. It may be given in a dose of gr. 10, ℈1 or more.

Jalapium. *Jalap.* D. gr. 10 to 31.

Is brought from *New Spain*; has a dark colour, no smell, and little taste. In phlegmatic habits it proves a safe and effectual purge. It gripes violently in hypochondriacal and bilious habits, and seldom has the wished for effect; triturated with sugar, testaceous powders, or with almonds, in form of an emulsion, it purges plentifully in small doses, and is an excellent hydragogue. The *resin* works rougher, because all such substances act with greater irritation upon the coats of the stomach and intestines, so as to occasion a great deal of pain and uneasiness; for which reason it is corrected with sugar, cream of tartar, &c. whereby it is supposed to be brought into the same state as nature first presented it to us in the root; and where the form is required to be small, as often in administering to children, the *resin* thus corrected best answers this intention.

intention. It may be given from gr. 3 to ℈1. The *extract* is a uſeful purgative, and preferable to the crude root, as being of uniform ſtrength; and the doſe, by the rejection of the wood, is rendered ſmaller; from gr. 6 to 12 is the common doſe.

GAMBOGIA. *Gamboge.* D. gr. 2 to 4.

Is a ſolid concrete juice brought from the *Eaſt Indies*; of a deep yellow colour, has no ſmell, but a ſlightly acrid taſte. Alkaline ſalts enable it to mix with water; it evacuates plentifully upwards and downwards, is a powerful hydragogue, and ought only to be given to ſtrong people.

CUCUMIS AGRESTIS. *Wild Cucumber.* D. gr. 2 to 5.

The juice of the wild cucumber is expreſſed and inſpiſſated to the conſiſtence of an extract, and is called *Elaterium*; it is a ſtrong cathartic, and for the moſt part operates both ways; is good in dropſies, but ſhould not be uſed till milder purges have proved ineffectual: it is ſometimes added in ſmall quantities as a ſtimulus to the weaker purgatives.

SCAMMONUM. *Scammony.* D. gr. 5 to 15.

Is a concrete juice brought from abroad; has a light grey colour, faint unpleaſant ſmell, and bitter acrimonious taſte; is an efficacious and ſtrong purgative; but where the inteſtines are lined with a great load of mucus, it paſſes through without exerting itſelf upon them; but where the natural mucus is deficient, a ſmall doſe of this, or any other reſinous cathartic, may irritate and inflame. If triturated with ſugar or almonds, it is ſufficiently ſafe. There are various ways which authors have contrived to prepare ſcammony with a view to make it a milder and ſafer cathartic: moſt agree in doing this with acids: ſome bake or roaſt it, incloſed in the fruit of a quince; then it is called *Diagrydium*; others waſh it with the juice of lemons, citrons, and with diſtilled vinegar; others powder and lay it upon paper over coals, upon which ſulphur is to be burnt, till the ſcammony turns white and melts, then it is called *Scammonium cum Sulphure præparatum, Scammony prepared with Sulphur.* Its virtues are little altered by this preparation.

Reſina Scammonii, Reſin of Scammony, kept in the ſhops, is a pure reſin, and may be fitted for uſe, by trituration, with teſtaceous powders, or with almonds,

in

in the form of an emulſion, or by diſſolving it in ſpirit of wine, and then mixing the ſaturation with a ſufficient quantity of ſyrup. Gr. 6 or 8 of ſcammony, or jalap, managed in this manner, prove powerful cathartics, without griping, or greatly diſordering the body; which they generally do, when exhibited by themſelves, without ſuch treatment. The reſin of ſcammony is obtained by a ſolution of ſcammony in ſpirit of wine, afterwards mixed with water, and then evaporated to a due conſiſtence. It is ſomewhat rougher and ſtronger than ſcammony itſelf, therefore its doſe is from gr. 1 to 7.

TARTARUM. *Tartar.* D. ℥ſs to 1.

Is a ſaline ſubſtance found ſticking to caſks of wine, like a very hard ſtone; ſometimes white, ſometimes red, according to the colour of the wine from whence it comes. The white is preferable, as containing leſs earth. This ſubſtance, though truly ſaline, is ſcarce acted upon by cold water: the pureſt ſort requires twenty-four times its weight of boiling water to diſſolve it. The virtues of tartar are thoſe of a mild, cooling, aperient, laxative medicine, taken from half an ounce to one ounce. It proves a gentle, though effectual purge, and has been known to cure habitual cholics, by purging a few times with it.

PRÆPARATA.

SALES.

E. CRYSTALLI TARTARI. *Cryſtals of Tartar.* D. ʒſs to ℥i.

Is nothing but a purification of tartar, by boiling in water, ſtraining, and then ſuffering the ſolution to cryſtalize: It is a cooling, gentle cathartic, and, as moſt ſaline purges do, paſſes off partly by urine.

Cremor Tartari, *Cream of Tartar*, differs in no reſpect from the cryſtals, reduced to powder; is obtained by boiling any quantity of a ſolution of tartar, till a thick cuticle appears on the top, which is to be taken off for uſe, and the operation repeated, till the whole quantity of liquor is conſumed.

L. E. SAL TARTARI. *Salt of Tartar.* D. gr. 10 ϑ2.

Is made from tartar wrapt up in ſtrong brown paper, wetted and expoſed to the fire in a cloſe veſſel, till the oil is burnt out, then it is taken out, boiled

and

and exſiccated into a ſalt for uſe. What has been ſaid of the virtues of ſalt of wormwood is equally applicable to this and all other lixiviate ſalts; they overcome acidities in the *primæ viæ*; reſolve viſcidities of the blood, and other humours, and conſequently remove glandular obſtructions thence ariſing; looſen the texture of calcareous concretions in the liver, kidnies, and bladder: they operate by urine, or ſweat, according to the regimen uſed; are good in cholics, flatulent diſorders, ariſing from a defect of bile, or from eating fruit, or other aceſcent diet; good alſo in cachectic and hypochondriac caſes, in ſchirrous livers, jaundice, ſtone, gravel, and dropſy.

Sal Tartari Volatile, *Volatile Salt of Tartar*. Is obtained by diſtilling and rectifying the ſatiated ſalt of tartar or lees of wine, dried and beat into groſs powder. The volatile ſalt of tartar, made either of theſe ways, is with ſome in great eſteem, in thoſe diſeaſes which have their ſeat in the nerves, as palſies, apoplexies, epilepſis, &c. but the College takes no notice of it.

Tinctura Salis Tartari, *Tincture of Salt of Tartar*. Is made of ſalt of tartar ℥6, melted in a crucible, till red, and while hot pulverized, and immediately as much rectified ſpirit of wine as will ſtand three or four inches above it is poured upon it, in a ſtrong long-necked matraſs, and being digeſted ſeveral days in a pretty ſtrong ſand heat, the tincture is then obtained. This tincture was in former editions of the *Pharmacopœia*, but is now laid aſide. It operates both by ſweat and urine, and is an excellent aperient, and good in all ſcorbutic habits, cachexies, jaundice and dropſy. It may be given from gut. 10 to 60.

L. Lixivium Tartari. E. Liquamen Salis Tartari, *vulgo* Oleum per Deliquium Dictum. L. *Ley of Tartar*. E. *Or the Oil of Tartar per Deliquium*. D. ℥2 to ℥3.

Is tartar calcined to whiteneſs, and ſet in a moiſt place to be liquified by the air. This lixivium contains nearly one part of alkaline ſalts, and three of an aqueous fluid The cryſtals of tartar ſend over, by diſtillation, a ſpirit and oil; what remains in the retort may be made a ſalt of tartar by calcination; from whence likewiſe may be obtained an oil of tartar *per deliquium*. The ſpirit, procured by diſtillation, is extremely aperitive, and may be made yet more ſo by diſtilling it again with one third of its quantity of *Spir. Nitri Dulcis*. The ſpirit that comes over in this ſecond diſtillation is penetrating and grateful, a powerful

a powerful diaphoretic, and diuretic, and is given with ſucceſs in moſt obſtinate chronic caſes in any proper vehicle.

L. E. TARTARUM SOLUBILE. *Soluble Tartar.* D. ℈i to ℥ß.

Is ſalt of tartar, or any other fixed alkaline ſalt, pulverized with twice its weight of cream of tartar, and then boiled in water, which is either evaporated ſo as to leave the ſalt in a ſolid form, or the ſolution may be filtrated, and ſet to ſhoot into cryſtals. It operates both by urine and ſtool, and has been long eſteemed both as a medicine and *menſtruum*. It is given in cachexies, jaundice, dropſy, and other obſtructions, and is undoubtedly a ſerviceable aperient, attenuates viſcid juices, and is a uſeful addition to the reſinous purgatives, as it promotes their action, and prevents their griping quality.

Tartarum Solubile Chalybeatum, Chalybeated Soluble Tartar. Is the tincture of tartar made of ſteel, and one fourth of ſoluble tartar evaporated till there remains only a black powder, which is kept for uſe. It is a good aperient; poſſeſſes the virtues of the tincture of tartar with iron; is a powerful remedy in obſtructions of the menſes and viſcera, and may be given in any convenient form, yet is rarely preſcribed, and is not taken notice of by the College.

Sapo Tartareus, Soap of Tartar, is calcined ſalt of tartar, and thrice its quantity of oil of turpentine united into a ſoap. It is generally celebrated as a diuretic in nephritic complaints, and is conveniently enough made into a bolus from gr. 10 to ℥ß; is ſaid to be a corrector of certain vegetable ſubſtances, eſpecially opium; but is ſeldom met with in preſcription, or kept in the ſhops. It was formerly a great ſecret in the hands of *Starkey*, under the name of *Sapo Philoſophorum.*

L. E. TARTARUM VITRIOLATUM. *Vitriolated Tartar.* D. gr. 10 to ℥ß or ℈ß.

Is made of green vitriol ℥ß, diſſolved in ℔iv of boiling water, throwing in, while the liquor boils, ſalt of tartar, or other alkaline ſalt, till no further effervescence ariſes; the liquor is then filtrated, and, after due preparation, ſet by to cryſtalize. The *Edinburgh* College prepares it of oil of vitriol, diluted with an equal quantity of warm water, and oil of tartar *per deliquium,* till the effervescence ceaſes; the liquor is then filtrated, and evaporated to a pellicle, or ſuffered to cryſtallize in a cold place. It may be alſo procured by mixing

crude ſulphur with fixed alkaline ſalt, firing the ſulphur, and after it has done with burning, the ſalt is purified by ſolution and filtration, and is then ſet to cryſtalize. *Tartarum Vitriolatum*, formerly called *Sal Vitrioli Catharticum*, is an aperient, neutral ſalt, and is exhibited in ſmall doſes from ℈1 to ʒſs for attenuating viſcid juices, and promoting the fluid ſecretions; is of great ſervice in ſcorbutic and cachectic caſes: in large doſes it proves a mild and ſafe cathartic; ʒſs in general is ſufficient to purge gently. It is but little uſed as a purgative, but is in many caſes preferable to any purging ſalt whatever, being an excellent hydragogue. Whoever would have this medicine properly prepared from the ſhops, ſhould inſiſt on having it in cryſtals, otherwiſe they will either give *Sal Polychriſti*, which is an acrid ſalt, and in fact nothing but the *Caput Mortuum* of *Glauber*'s ſpirit of nitre, reduced to powder; or tartar vitriolate, reduced to powder with *Epſom* ſalt.

L. E. Sal Catharticus Glauberi. *Cathartic Salt of Glauber, commonly called* Sal Mirabile. D. ʒſs to iſs.

Is the maſs remaining after the diſtillation of the ſpirit of ſea ſalt, diſſolved in water, filtrated and cryſtalized. The title of this ſalt expreſſes its medicinal virtues. Taken from ʒſs to 1 or more, it proves a mild and uſeful purgative, and anſwers all the intentions of moſt of the purging waters. In ſmall doſes, largely diluted, it proves a ſerviceable aperient and diuretic: it is greatly preferable to *Epſom* ſalt, or *Sal Catharticus Amarus*.

TINCTURÆ, &c.

E. Tinctura Cephalica Purgans. *Purging Cephalic Tincture.*

Is made of leaves of ſena ʒ2, black hellebore root ʒ1, *French* white wine ℔2, cephalic tincture ℔6, all mixed together. This tincture is but weakly purgative.

L. Tinctura Melampodii. *Tincture of Melampodium.* E. Tinctura Hellebori Nigri. *Tincture of Black Hellebore.* D. gut. 20 to 100.

Is made of black hellebore root ʒ4, cochineal ℈2, *French* brandy ℔2, macerated for three days, and then filtrated for uſe. This is an admirable medicine for many purpoſes, but particularly excels in opening uterine obſtructions;

tions; and in ſanguine conſtitutions where ſteel is hurtful; this never fails of forcing the menſes; it is a powerful alterative, and good in maniacal, hypochondriacal and dropſical caſes; it may be given in any convenient vehicle.

L. TINCTURA RHABARBARI VINOSA. *Vinous Tincture of Rhubarb.* D. ʒi to ℥ii.

Is made of rhubarb ℥ii, leſſer cardamom ſeeds freed from the huſks ℥ſs, ſaffron ʒii, white wine ℔ ii m. macerated without heat, and then ſtrained. This is a warm cordial laxative medicine, uſed chiefly in weakneſs of the ſtomach and bowels, and in ſome kinds of looſeneſs for evacuating the offending peccant matter, and ſtrengthening the tone of the viſcera.

L. E. TINCTURA SACRA. *Sacred Tincture.* D. ʒi to ℥ii.

Is made of ſocotorine aloes powdered ℥ß, canella alba powdered ℥ii, white wine ℔ i m. macerated without heat for a week or longer, and then ſtrained for uſe. The *Edinburgh* College directs it to be made of ſocotorine aloes powdered ℥i, *Virginian* ſnake root, ginger ā ā ʒi, cochonieal ℈i, mountain wine ℔ iſs, digeſted for three days, and then ſtrained. This tincture has been found by long experience to be not only an excellent cathartic, but likewiſe by its ſtimulating quality, is of great ſervice in languid phlegmatic habits, not only for cleanſing the *primæ viæ*, but likewiſe for attenuating and diſſolving viſcid juices, in the remoter parts, by ſtimulating the ſolids, warming the habit, and promoting or exciting the uterine purgations and hæmorrhoidal flux: as an alterative it produces excellent effects in gout, rheumatiſm, &c. and may be ſo managed as not to operate for a conſiderable time, by ſtool, but at length it proves purgative, and occaſions a lax habit of much longer continuance, than that produced by any other cathartic. If to ℥i of this tincture you add from gr. 5 to 8 of ſalt of wormood, and gr. ſs of emetic tartar, you have a noble medicine, which ſhould be taken at bed time.

L. TINCTURA JALAPII. E. TINCTURA JALAPPÆ. *Tincture of Jalap.* D. ʒi to ℥ſs.

Is made of jalap ℥ß, proof ſpirits ℔ ii m. digeſted together, and then ſtrained. The *Edinburgh* College directs this tincture to be made of jalap reduced to a courſe powder ℥iii, digeſted for three days with ℔ i of proof ſpirit. This is a

uſeful and mild purgative, and may be given by itſelf, or mixed in ſmall quantities with cathartic infuſions; given in ſmall doſes it proves an excellent alterative, and ſometimes ſudorific.

E. Tinctura Jalappæ Composita. *Compound Tincture of Jalap.* D. ʒ2 to ʒi.

Is made of jalap ʒ6, black hellebore ʒ3, juniper berries, guaiacum ſhavings āā ℥ſs, *French* brandy ℔ i ſs, digeſted for three days, and then ſtrained for uſe. This ſhould be given in a larger quantity than the foregoing, if intended to act fully as a cathartic. It may be employed to great advantage in ſmall doſes as an alterative.

L. Tinctura Senæ. *Tincture of Sena.* E. Tinctura Senæ Composita, vulgo Elixir Salutis. *Compound Tincture of Sena, or Elixir of Health.* D. ℥ſs to i ſs.

Is made of ſtoned raiſins ʒi6, leaves of ſena ℔ i, caraway ſeeds ʒi ſs, leſſer cardamoms huſked ℥ſs, digeſted without heat in one gallon of proof ſpirit, and then ſtrained off. The *Edinburgh* College directs their tincture to be made of leaves of ſena ℥2, rhubarb ʒi, ſweet fennel ſeed, juniper berries, guaiacum ſhavings āā ℥ſs, *French* brandy ℔ ʒ3, digeſted for three days; to the ſtrained tincture ℥3 of powdered ſugar-candy are added. Both theſe tinctures are uſeful carminatives and cathartics, eſpecially to thoſe who have accuſtomed themſelves to the uſe of ſpirituous liquors. They ſometimes relieve flatulent colic complaints, where the common cordials have little effect. Several preparations of this kind have been offered to the public, under the name of *Daffy's Elixir*, &c. but the two tinctures of the colleges are ſuperior to moſt, if not all of them.

L. Tinctura Veratri. *Tincture of Veratum, or White Hellebore.* D. gut. 5 to ʒi.

Is made of white hellebore ℥8, proof ſpirit ℔ 2 m. digeſted, and ſtrained through paper. This tincture is ſometimes uſed for actuating cathartics, and as an emetic in apoplectic and maniacal diſorders; it may be ſo managed as to prove a powerful alterative and deobſtruent, in caſes where milder remedies have little effect; but care muſt be uſed in the exhibition of it, for if the doſe is great, it proves violently emetic; therefore the doſe at firſt ought only to be a few drops.

L. Elixir

L. Elixir Aloes. *Elixir of Aloës.* E. Elixir Proprietatis. D. gut. 10 to 32.

Is made of ſocotorine aloes, ſaffron āā ℥3, tincture of myrrh ℔2 m. digeſted and ſtrained. The *Edinburgh* College directs it to be made of myrrh in powder ℥2, rectified ſpirit of wine ℔2, digeſted for four days in B. A. then ℥1ſs of ſocotorine aloes, and ℥1 of *Engliſh* ſaffron are added, and the digeſton continued for two days longer, then the elixir is ſtrained off: if dulcified ſpirit of vitriol is uſed as a menſtruum in place of rectified ſpirit of wine, then this is called *elixir proprietatis vitriolatum.* This differs little from *elixir proprietatis Paracelſi*; they are all warm, ſtimulating, aperient medicines; they ſtrengthen the ſtomach and other viſcera, and at the ſame time forward the diſcharge of noxious humours, and admirably cleanſe the *primæ viæ* from tenacious phlegm; open obſtructions of the remoter veſſels; promote all the natural ſecretions; and if continued long enough, as alteratives, they do good ſervice in cachectic and icteric caſes, uterine obſtructions, green ſickneſs, and other like diſorders, particularly in cold phlegmatic habits: this elixir is ſaid to kill worms, and certainly nothing is better to keep the bowels clean of thoſe ſlimy and viſcid humours, the effects of indigeſtion, which breed them, than this medicine; it is however hurtful to hot bilious conſtitutions and florid complexions.

E. Elixir Sacrum. *Sacred Elixir.*

Is made of rhubarb cut ſmall ʒ10, ſocotorine aloes in powder ʒ6, leſſer cardamom ſeeds ℥ſs, proof ſpirit ℔2 m. digeſted, and then ſtrained. This elixir poſſeſſes the virtues of the preceeding.

L. Vinum Aloeticum Alkalinum. *Alkaline Aloetic wine.* D. ʒ1 to ℥ſs.

Is made of any alkaline ſalt ℥8, ſocotorine aloes, ſaffron, myrrh āā ℥1, ſal ammoniac purified ʒ6, white wine ℔2 m. macerated for a week or longer without heat, and then filtrated for uſe. This is the *elixir proprietatis Helmontii,* with ſome little variation. It is a very efficacious and uſeful medicine for many purpoſes; and may be ſo managed as to attenuate viſcid juices, open obſtructions in the remote parts, and promote evacuation by almoſt all the emunctories: in doſes of ʒ1, 2 or 3, it increaſes the urinary ſecretion, and if the patient is kept warm, generally proves diaphoretic or ſudorific; in larger doſes it generally looſens the body.

INFUSA,

INFUSA, &c.

L. Infusum Amarum Purgans. E. Infusum Amarum cum Sena. L. *Purging Bitter Infusion.* E. *Bitter Infusion with Sena.* D. ℥1 to 4.

Is made of leaves of ſena, yellow rind of lemon peel freſh āā 33, gentian root, yellow rind of *Seville* orange dry, leſſer cardamom ſeeds freed from the huſks āā 3ſs, boiling water ℥5 macerated, when cold the liquor is filtrated through paper. The *Edinburgh* College directs their infuſion to be made of gentian root, ſweet fennel ſeed āā 3ſs, leaves of ſena 31, boiling water ℥4, infuſed for four hours, and then ſtrained. Both theſe are uſeful purging bitters, the quantities here preſcribed are intended for a doſe.

L. Infusum Senæ Commune. *Common Infuſion of Sena.* D. ℥1 to 4.

Is made of cryſtals of tartar 33 diſſolved in ℔ 1 of water, while the water boils, of leaves of ſena ℥1ſs, leſſer cardamom ſeeds freed from the huſks 32, are added, and when the liquor is cold, it is ſtrained for uſe. This is a good cooling purge.

L. Infusum Senæ Limoniatum. *Infuſion of Sena with Lemon.* D. ℥1 to 4.

Is made of leaves of ſena ℥1ſs, yellow rind of lemon peel freſh ℥1, lemon juice ℥1, boiling water ℔ 1 m. macerated, and when cold is ſtrained for uſe. This is the moſt agreeable way of exhibiting ſena; it proves a very pleaſant and ſufficiently efficacious purge.

E. Infusum Senæ unciæ Quatuor. *A Four Ounce Infuſion of Sena.*

Is made of leaves of ſena 33, ginger ʒ1, boiling water ℥4, infuſed for four hours, and ſtrained. This is a very good way of exhibiting ſena.

E. Decoctum Tamarindorum cum Sena. *Decoction of Tamarinds with Sena.*

Is made of Tamarinds 36, cryſtals of Tartar 32, water ℔ 1ſs, boiled in an earthen veſſel till ℔ 1 of ſtrained liquor only remains, to which while hot, of leaves of ſena 31, cinnamon water, without wine ℥ſs, ſyrup of violets ℥1, are added.

added. This is a ſufficiently efficacious and not diſagreeable purge; the quantity here preſcribed is deſigned for one doſe, to be taken at ſhort intervals, as the ſtomach can bear.

SYRUPI.

L. Syrupus Rosarum Solutivus. *Solutive Syrup of Roſes.*

Is made of the liquor that remains after the diſtillation of damaſk roſes ℔6 p. of double refined ſugar ℔5 p. The liquor is firſt boiled down till it meaſures three pints, then ſet by for one night that the fæces may ſubſide; then the ſugar is added, and the whole boiled till it weighs ℔7ſs. This is an agreeable and mild purgative for children, and proves gently laxative to adults, is of great ſervice in coſtive habits; its principal uſe is in clyſters.

E. Syrupus de Sena et Rheo. *Syrup of Sena and Rhubarb.*

Is made of raiſins ℥2, water ℔4, boiled to the conſumption of one fourth, then leaves of ſena ℥2, ſliced rhubarb ℥1, ginger bruiſed ʒ2, are added, and the whole infuſed for one night in a cloſe veſſel; to the ſtrained liquor ℔3ſs of white ſugar are added, and the whole boiled to the conſiſtence of a ſyrup. This ſyrup is chiefly deſigned as a purgative for children, but it is not a very agreeable one.

L. Syrupus e Spina Cervina. E. Syrupus de Spina Cervina, seu Rhamno Cathartico. *Syrup of Buckthorn.*

Is made of the ſtrained juice of ripe and freſh buckthorn berries one gallon, in part of which, cinnamon, ginger, nutmeg āā ℥1, are macerated for a few days, the reſt of the juice is boiled, and towards the end, that part in which the juices were macerated, after ſtraining, is added, and the whole boiled to ℔4 m. to which ℔7 p. of double refined ſugar are added. The *Edinburgh* College directs this ſyrup to be made of the juices of ripe buckthorn berries depurated ℔6, white ſugar ℔4, boiled to the conſiſtence of a ſyrup. Three or four ſpoonfuls of this ſyrup operate briſkly as a cathartic, and bring off large quantities of ſerous humours; it occaſions a thirſt and dryneſs of the mouth and fauces, and ſometimes violent gripes, though both theſe inconveniencies are prevented by drinking liberally of water gruel, or other warm liquor during the operation.

L. E.

L. E. Syrupus Violarum. *Syrup of Violets.*

Is made of violets freſh and well coloured ℔ 2 p. boiling water ℔ 5, macerated for a whole day in a glaſs or glazed earthen veſſel; to the carefully decanted liquor a ſufficient quantity of white ſugar is added. This ſyrup has a very agreeable flavour, and proves a gentle laxative to children, but it is chiefly valued for its elegant colour, which it loſes in keeping.

L. Mel Helleboratum. *Honey of Hellebore.* D. 3ı to 3.

Is made of white hellebore roots dried and ſliced ℔ 1 p. water ℔ 4 m. macerated for three days, and then boiled a little; the ſtrained liquor is again boiled with ℔ 3 p. of clarified honey to the proper conſiſtence. This acts as a draſtic purge or emetic, too violent and precarious for common uſe; it has been given in maniacal caſes, though moſt frequently uſed in clyſters. The preſent practice rarely makes uſe of it at all.

PULVERES.

L. Pulvis e Scammonio Compositus. *Compound Powder of Scammony.* D. gr. 5 to 3ſs.

Is made of ſcammony ℥ 4, calcined hartſhorn prepared ℥ 3, mixed. The hartſhorn divides the ſcammony, promotes its purgative virtue, and renders it leſs griping. This powder has been uſually prepared with diaphoretic antimony and cryſtals of tartar, and called *pulvis cornuchini*, or *pulvis comitis Warvicenſis*, *earl of* Warwick's *powder*. Some think that the diaphoretic antimony and tartar are of no farther uſe, than as they divide the texture of the ſcammony, but whoever knows the nature of that powerful medicine antimony, will think otherwiſe.

L. Pulvis e Sena Compositus. *Compound Powder of Sena.* E. Pulvis Diasennæ. D. ℈ı to 3ı.

Is made of the leaves of ſena, cryſtals of tartar ā ā ℥ 2, ſcammony ℥ ſs, cloves, cinnamon, ginger ā ā 3 2, powdered and mixed. The *Edinburgh* College directs this powder to be made of leaves of ſena, cream of tartar ā ā ℥ 2, ſcammony, ginger ā ā ℥ ſs, mixed together. Theſe powders are given as cathartics, and are very uſeful and well contrived preparations.

PILULÆ.

PILULÆ.

L. Pilulæ ex Colocynthide Simpliciores. *The more Simple Colocynth Pills.* D. gr. 15 to 3ſs.

Are made of pith of colocinth, ſcammony, reduced to powder, āā ʒ2, oil of cloves 32, with a ſufficient quantity of ſyrup of buckthorn. Theſe pills are very ſtrong cathartics, and ought not to be ventured upon where leſs violent ones will take effect; the gout, and ſome chronical complaints, may be removed by their means; they have been recommended, and ſometimes made uſe of, in venereal caſes, but very improperly, as they are apt to bring on obſtinate and incurable gleets.

L. Pilulæ ex Colocynthide cum Aloe. *Colocynth Pills with Aloes.* E. *Pilulæ Cocciæ, Pills* called *Cochiæ.* D. gr. 15 to 3ſs.

Are made of pith of colocynth ʒ1, ſocotorine aloes, ſcammony, reduced to powder, āā ʒ2, oil of cloves 32, with a ſufficient quantity of ſyrup of buckthorn. The *Edinburgh* College directs their pills to be made of ſocotorine aloes, colocynth, ſcammony āā ʒ1, vitriolic tartar 32, oil of cloves 31, and a ſufficient quantity of ſyrup of buckthorn. Some add euphorbium corrected with gum arabic and nitre. Theſe pills are ſtrong cathartics, but not ſo violent as the former; are commonly made uſe of when briſk purges are neceſſary. When black hellebore is added to theſe pills, they are called *pilulæ cocciæ cum helleboro.* They are admirable cathartics in maniacal, hypochondriacal, and in all nervous caſes, and uterine obſtructions.

E. Pilulæ de Gambogia. *Gamboge Pills.* D. gr. 15 to 3ſs.

Are made of gamboge, ſocotorine aloes, extract of black hellebore, calomel āā 32, eſſential oil of juniper 3ſs, ſyrup of buckthorn a ſufficient quantity. This is a ſtrong purge, and carries off a great load of viſcid, cold, pituitous humours, and reſtores vigour to the nerves, as well as removes their impediments; is good in epilepſy, palſy, dropſy, ſciatica, and rheumatiſm, and carry off the moſt obſtinate humours.

L. E. Pilulæ Mercuriales. *Mercurial Pills.* D. gr. 10 to ℈1.

Are made of pure quickſilver ʒ5, *Straſburgh* turpentine ʒ2, ground till the mercurial globules ceaſe to appear, then of cathartic extract ℈4, rhubarb reduced to powder ʒ1, are added, and the whole mixed together. The *Edinburgh* College directs theſe pills to be made of quickſilver, reſin of guaiacum, *Spaniſh* ſoap āā ʒ1, beat in a glaſs mortar, till the mercurial globules ceaſe to appear, then made into a maſs with ſimple ſyrup.

E. Pilulæ Mercuriales Laxantes. *Laxative Mercurial Pills.*

Are made of pure quickſilver ʒ1, reſin of guaiacum ʒſs,, perfectly incorporated, to which are added, of extract of black hellebore, rhubarb powdered āā ʒſs, with a ſufficient quantity of ſimple ſyrup. All theſe mercurial pills are capable of doing good ſervice in ſundry chronical diſorders; they may be given as alteratives from gr. 8 to 10, and as purgatives they may be given in larger doſes.

L. Pilulæ Rufi. Rufus's *Pills.* E. Pilulæ Communes vulgo Rufi. *Common Pills, commonly called* Rufus's *Pills.* D. gr. 10 to ʒ1.

Are made of ſocotorine aloes ʒ2, myrrh, ſaffron āā ʒ1, with a ſufficient quantity of ſyrup of ſaffron. The *Edinburgh* College directs theſe pills to be made of ſocotorine aloes ʒ2, myrrh ʒ1, *Engliſh* ſaffron ʒſs, with a ſufficient quantity of ſyrup of orange peel. Theſe pills have the virtues of *elixir proprietatis*, they only produce their effects more gradually; ʒſs or ℈2 prove gently cathartic; but they anſwer much better purpoſes when exhibited in ſmall doſes as alteratives; they are a good ſtomach purge, and at the ſame time greatly warm and ſtrengthen the habit, and are particularly ſerviceable in cold conſtitutions, indigeſtion, green ſickneſs, uterine obſtructions, &c.

E. Pilulæ seu Extractum Rudii. *Pills or Extract of Rudius.* D. gr. 15 to ℈2.

Are made of colocynth, black hellebore root āā ʒ2, water ℔4, boiled to the conſumption of the half, the liquor is ſtrained and evaporated to the conſiſtence of honey, to which ʒ2 of ſocotorine aloes, ʒ1 of ſcammony, are added. When the maſs is taken from the fire, ʒ2 of vitriolated tartar, ʒ1 of oil of cloves

cloves are added, and the whole mixed and made into pills. This is one of the beſt purges in the ſhops, where this form is required: It is ſometimes called *Extractum Euſtachii*, *Extract of Euſtachius*, from the name of its author, *Euſtachius Rudius*.

L. Extractum Catharticum. *Cathartic Extract.* D. gr. 15 to ʒ2.

Is made of colocynth ʒ6, leſſer cardamom ſeeds ℥ſs, proof ſpirit ℔ i m. digeſted with a gentle heat for four days, then the tincture is filtrated, and ℥iſs of ſocotorine aloes, and ℥ſs of ſcammony ſeparated and reduced to powder are added, then the ſpirit is drawn off, and the remaining maſs is inſpiſſated to the conſiſtence of pills. It is a very powerful cathartic, and may be relied upon in caſes where the life of the patient depends on its taking effect. It does not retain much of the flavour of the cardamom ſeeds.

ELECTARIA.

L. Electarium e' Casia. *Electary of Caſia.* E. Diacasia. D. ʒ2 to ℥i.

Is made of ſolutive ſyrup of roſes, pulp of caſia freſh extracted āā ℔ ſs, manna ℥2, ground in a mortar, and with a gentle heat diſſolved in the ſyrup; then ℥i of pulp of tamarinds is added, and the whole inſpiſſated to a due conſiſtence. The *Edinburgh* College directs this electary to be made of pulp of caſia ℥12, pulp of tamarinds ℥6, *Calabrian* manna ℥8, diſſolved in warm water, and to the ſtrained ſolution ℔ i of ſyrup of pale roſes is added; which being evaporated to a due conſiſtence, the whole is mixed into an uniform electary. Both theſe compoſitions are very good officinals, and ſerve as a baſis for purgative electaries, and other like purpoſes, and may be advantageouſly taken by themſelves for gently looſening the belly in coſtive habits. The tamarinds give them a fine taſte.

L. E. Electarum Lenitivum. *Lenitive Electary.* D. ʒ2 to ℥i.

Is made of ſena ℥8, coriander ſeeds ℥4, mixed and pulverized, and ℥10 of the powder ſifted out, the remainder is boiled with ℔ i of figs, ℥3 of liquorice, and ℔ 4 of water to one half; then the ſtrained liquor is evaporated to ℔ iſs, in which ℔ 2ſs of double refined ſugar, and of the pulps of caſſia, tamarinds, *French* prunes āā ℔ ſs, with the powder already mentioned, all mixed into an

uniform electary. This may be occaſionally taken to the quantity of a nutmeg or more, for looſening the belly in coſtive habits. It is ſometimes uſed in clyſters.

L. Electarium e Scammonio. *Electary of Scammony.* D. ʒi to 2.

Is made of ſcammony ʒiſs, cloves and ginger āā ʒ6, eſſential oil of carraway ʒſs, honey ℔ bſs, mixed together. This is a warm, briſk purgative. It is a reform of the *Electuarium Caryocoſtinum.*

E. Lohoch de Manna. *Lohoch of Manna.*

Is made of *Calabrian* manna, oil of almonds freſh drawn, ſyrup of violets āā p. æ. mixed together. This is a very good laxative.

FORMULÆ EXTEMPORANEÆ.

℞ Infuſ. ſenæ commun. ℥ʒ, ſal cath. Glauber. ʒ3, ſyr. roſar. ſolutiv. ℥ſs m.

℞ Aq. alexeter. ſimpl. — ſpt. āā ℥ʒ, tartar. emetic. gr. 10, ſyr. e ſpin. cervin. ℥ʒ, doſ. cochl. 1, ſingulis horis.

℞ Fol. ſenæ ℔ i piper. jamaicenſ. ℥ʒ, ſpt. vin. tenuior. cong. 1, ſyr. roſar. ſolutiv. ℔ ſs m. et infunde per aliquot dies. Sign. *Infuſum Laxat. Spirit.* doſ. ℥ʒ.

℞ Infuſ. ſenæ com. ℥ʒ, ſyr. e ſpin. cervin. ℥i, aq. ſem. carui ℥ſs m.

℞ Aq. commun. ℥ʒ, ſal. cathar. Glauber. ʒ6, tinct. ſenæ ℥ſs m.

℞ Rad. gentian. flav. cort. aurant. ſem. carui āā ʒſs, ſenæ ʒ3, aq. bull. ℥4, infunde & cola, dein adde aq. ſem. carui ℥ſs, bis in hebdom. ſumend.

℞ Infuſ. ſenæ com. ℥ʒ, mannæ ℥i, ſal. cathartic Glauber. ʒ3, aq. ſem. carui ʒ2 m.

℞ Infuſ. ſenæ com. ℥ʒ, mannæ ʒ6, ſal. cathartic. Glauber. ʒi, aq. ſem. carui ʒ4, tinct. ſenæ ℥i m.

℞ Ol. amygdal. dul. aq. alexeter. ſimpl. āā ℥i — piper. jamaicenſ. ʒ3, ſal. epſom. ℥i, m. f. hauſtus.

℞ Ol. amygdal. dulc. ℥i, aq. puleg. ſimpl. ℥ſs — nuc. moſch. ſyr. ex alth. āā ʒ2 m.

℞ Tinct. rhabarb. ℥iſs ol. omygdal. dul. ℥ſs ſyr. papav. errat. ʒ2, tinct. thebaic. gut. 15 m.

℞ Senæ ℥ʒ, crem. tartar. ſem. carui āā ʒ6, aq. bullient. ℥12, infunde cocturæ frigidæ adde mannæ ℥4, tinct. ſenæ ʒ6, doſ. ℥ʒ, ad arbitrium.

℞ Caſiæ

℞ Caſiæ fiſtul. pulp. (in ſeri lact. vin. ſolut. ℔ i) ℥i, cola pro tribus doſ. una ſingulis horis ſumenda.

℞ Mannæ ℥ii, ſal. cathart. amar. ℥i, aq. fervent. ℔ i, cola doſ. ℥ii, omn. hora iterand. donec alvus ſolvatur.

℞ Jalap. pulv. ʒſs, ex vin. alb. ſumend.

℞ Jalap. pulv. gr. 25, aq. cinnam. ſpt. ℥i, ſyr. e cort. aurant. ʒi, f. hauſtus.

℞ Rhabarb. ʒi, jalap. gr. 5, aq cinnam. ſimpl. ℥i, ſyr. e cort. aurant. ʒi m.

℞ Scammon. gum. guaiac. (vitell. ov. ſolut.) āā ʒi, aq. alexeter. ſimpl. ℥ii — nuc. moſchat. ſyr. croci āā ʒi, f. hauſtus hydrag.

℞ Senæ fol. ʒii, aq. fontan. ℥iio, coque ad ℥vi, cola & adde ſacchar. alb. ʒii, doſ. ℥i, omni hora donec alvus fuerit ſolut.

℞ Infuſ. amar. purg. ℥ii, tinct ſenæ ʒi, f. hauſtus.

℞ Infuſ. ſenæ com. ℥ii, tinct. ſenæ ℥i, ſyr. roſar. ſolutiv. f. hauſt. pro re nata ſumendus.

℞ Tamarind. ℥i, ſenæ fol. ʒii, coque in aq. font. ℔iſs ad ℔ i, & cola: doſ. cochl. 3, ſingul. horis ſumend.

℞ Tamarind. ℥i, ſeri lactis ℥viii coque; colaturæ adde mannæ ℥ii, hauſtulus ſubinde ſumendus.

℞ Crem. tartar. ʒiii, ſolve in aq. fervent. ℥vi, adde manne ℥ii, & cola: hauſtum ſubinde bibat æger.

℞ Sal. cathart. amar. ℥i, ſolv. in aq. fervent. ℥viii, doſ. cochl. 2 omni hora donec ſolvatur alvus.

℞ Sal. cathart. Glauber. ʒvi, mannæ ℥ſs, aq. fervent. ℥iiſs cola.

℞ Fol. ſenæ ℥i, tartar. alb. aq. roſar. damaſcen. vin. alb. āā ℥i vi, infunde calide per 12 horas cola & adde colaturæ ℥ii, ſyr. e cort. aurant. ℥iv, doſ. ℥iii ad v.

℞ Rhabarbar. tenuiter inciſ. ʒii, ſal. abſinth. gr. 16, aq. cinnam. ſimpl. ℥iv, calide infunde per noctem, colaturæ adde ſyr. roſar. ſolut. ℥ſs m.

℞ Rhabarb. ſenæ āā ʒii, glycyrrhiz. ſem. coriand. āā ʒiſs, ſal. cathart. Glauber. ʒii, aq. bull. ℥ii, infunde colaturæ adde ſyr. e ſpin. cervin. ʒiii m.

℞ Senæ ʒiii, rhabarb. ʒiſs, ſem. coriand. glycyrrhiz. āā ʒi, ſal. tartar. gr. 10, infunde in aq. q. ſ. col. adde elix. ſalutis ʒii, ſyr. roſar. damaſ. ʒiv m.

℞ Roſar. damaſ. ℥i ſeri lact. ℔ i, infunde per noctem & cola.

℞ Scammon. gr. 14, ſpt. ror. marin. ʒii, ſyr. e ſpin. cervin ʒvi m.

℞ Jalap. ʒi, ipecacoan. gr. 3, aq. junip. comp. ℥i, infuſ. ſenæ com. ℥iſs, ſyr. ſimpl. ʒi m.

℞ Ol. amygdal. ſyr. ex alth. āā ʒiv, aq. cinnam. ſimpl. ℥ii m.

℞ Sal. tartar. ʒi, acet. diſtill. ℥iiſs, aq. cinnam. ſpt. ℥ſs, ſacchar. pur. ʒi m. f. hauſtus hydropic. per vices ſumend.

℞ Amygdal.

℞ Amygdal. dul. ℥ß, ſacchar. ℥j, gum. arab. ʒiſs, ſcammon. gr. xij, aq. cinnam. ſimpl. ℥j, m. f. hauſtus.

℞ Syrup. roſar. damaſ. ℥iſs, aq. alexeter. ſpt. ℥ß m.

℞ Syr. de ſenna & rheo ℥ß, aq. cort. aurant. ſpt. ℥iſs m.

℞ Syr. de ſenna & rheo ℥j, elix. ſalutis ℥iv, aq. cort. aurant. ſpt. ℥iſs m.

℞ Syr. e ſpin. cervin. ℥iſs, aq. cinnam. ſpt. ℥iſs — epidemic. ℥ß m.

℞ Syr. roſar. damaſ. ℥iſs, elix. ſalutis ℥ſs, aq. piper. jamaicenſ. ℥j m.

℞ Fol. ſenæ ℥ß, rad. glycyrrhiz. ʒiſs, ſem. coriand. ſal. tartar. āā gr. x, infunde in aq. bull. q. ſ. cola ℥ß, cui adde elix. ſalutis ℥ß, ſyr. roſ. damaſ. ℥ſs m.

℞ Fol. ſenæ ℥iv, glycyrrhiz. ℥j, ſal. cathart. Glauber. ℥ß, infunde in aq. bull. q. ſ. cola ℥ß, adde ſyr. e ſpin. ſervin. ℥ſs m.

℞ Infuſ. ſenæ ℥ß, elect. lenitiv. ℥ſs, nitri. pur. ℥j, tinct. ſenæ ℥vj m. doſ. cochl. i, ſingulis horis donec alvus ſolvatur.

℞ Infuſ. ſenæ ℥iv, tinct. ſenæ ℥j, tartar. emetic. gr. i½, m. doſ. cochl. i, donec alvus ſoluta fuerit.

℞ Rhabarb. torr. gr. xv, elect. e ſcordio ʒiſs, m. f. bolus.

℞ Elect. lenitiv. ℔ i, crem. tartar. ℥ß, pulv. jalap. ℥j, ol. e ſem. carui eſſ. ℥j, ſyr. roſ. ſolutiv. q. ſ. f. elect.

℞ Gambog. ℥ß, tartar. vitriol. pulv. zingib. āā ℥ſs, ol. e bacc. juniper. ℥ß, ſyr. e ſpin. cervin. q. ſ. f. elect. hydragogum.

℞ Elect. lenitiv. flor. ſulph. āā p. æ. ſyr. ſimpl. q. ſ. f. electarium.

℞ Elect. lenitiv. ℥ß, ſucc. glycyrrhiz. ℥iſs, terebinth. venet. ℥ſs, rhabarbar. pulv. ℥ß, m. f. elect.

℞ Jalap. pulv. ℔ i, zingib. pulv. ℥j, ſyr. e ſpin. cervin. q. ſ. f. elect.

℞ Extr. cathartic. ʒi, calomel. gr. x, ſyr. e ſpin. cervin. q. ſ. f. bolus.

℞ Æthiop. mineral. ℔ i, rhabarbar. ℥vj, zingib. ℥ß, m. f. pulv. vermifug. D. gr. xij to ʒſs, pro infante.

℞ Scammon. jalap. ſenæ calomel. āā p. æ. D. ʒſs.

℞ Elect. lenitiv. ℥xij, terebinth. argentoratenſ. ℥iv, crem. tartar. ℥j, rhabarbar. tor. ℥ß, m. f. elect. doſ. ℥j, bis in die.

℞ Sapon. dur. ℥j, pulv. rhabarbar. gr. x, ol. e ſem. aniſ. eſſ. gut. iv, ſyr. ſimpl. q. ſ. f. bolus.

℞ Gambog. gr. xv, crem. tartar. gr. x, pulv. zingib. gr. v, ſyr. ſimpl. q. ſ. f. bolus.

℞ Aloës ſocotor. ſap. dur. āā ℥j, mel. q. ſ. f. pil. doſ. ʒſs.

℞ Pulv. jalap. gr. xxv, ſyr. zingib. q. ſ. f. bolus.

℞ Pulv. jalap. ℥ſs, zingib. pulv. ℥j, elect. lenitiv. ℥j, f. elect.

℞ Rha-

℞ Rhabarbar. ʒſs, mucilag. gum. arab. q. ſ. f. bolus.

℞ Senæ fol. ℈ı, tartar. vitriol. gr. 10, f. pulv.

℞ Extr. jalap. tartar. vitriol. āā gr. 12, f. pulv. pro doſ.

℞ Elect. e caſia ℥ı, tartar. vitriol. ℥ſs, ſyr. roſ. ſolutiv. q. ſ. f. elect.

℞ Elect. lenitiv. ℥ı, flor. ſulph. lot. ℥ſs, ſyr. roſ. ſolutiv. q. ſ. f. elect.

℞ Flor. ſulph. lot. ℈ı, ſyr. roſ. ſolutiv. q. ſ. f. bolus.

℞ Flor. ſulph. lot. ſal. Glauber. āā gr. 15, elect. lenitiv. q. ſ. f. bolus.

℞ Flor. ſulph. lot. ℥ı, tartar. vitriolat. elect. lenitiv. āā ℥ſs, ſyr. roſ. ſolutiv. q. ſ. f. elect.

℞ Extr. jalap. ſcammon. āā gr. 6, ocul. ♋ præp. gr. 10, ſacchar. ℈ı, m. f. pulv.

℞ Tartar. vitriolat. cryſtal. tartar. ſal. polychriſt āā ℈ſs m.

℞ Reſin. jalap. ſcammon. gr. 5, cryſtal. tartar. ſacchar. āā gr. 25, ol. e caryoph. aromatic. gut. 1 m.

℞ Pulv. jalap. ℈ı, gambog. gr. 10, crem. tartar. ℈ſs m.

℞ Elect. lenitiv. ℥ı, pulp. caſiæ ℥ſs, rhabarb. ʒı, zingib. ℈ı, ſyr. violar. q. ſ. f. elect.

℞ Scammon. gr. 12, tartar. ſolub. ℈ı, extr. glycyrrhiz. q. ſ. f. bolus.

℞ Gambog. mercur. dulc. ſpec. aromatic. āā ℈ı, ſyr. e ſpin. cervin. q. ſ. f. bolus.

℞ Extract. cathartic. ℈ı — thebaic. gr. 1, m. f. bolus.

℞ Gambog. gr. 2, reſin. jalap. gr. 6, crem. tartar. ℈ıſs, ol. e bacc. junip. eſſ. gut. 2, ſyr. e ſpin. cervin. q. ſ. f. bolus.

℞ Pulv. rhabarbar. ℈ıſs, elect. lenitiv. ʒı, ſyr. roſ. damaſ. q. ſ. f. bolus.

℞ Pulv. jalap. ℈ı, caſiæ ʒı, pulv. nuc. moſchat. gr. 3, ſyr. de ſenna & rheo q. ſ. bolus.

℞ Rhabarbar. gr. 8, calomel. gr. 6, elect. lenitiv. ʒſs, conſenſ. flor. ror. marin. q. ſ. f. bolus.

℞ Gambog. diagrid. reſin. jalap. mercur. dulc. āā gr. 7, crem. tartar. ʒſs, ſyr. e ſpin. cervin. q. ſ. f. bolus hydr.

℞ Rad. ſcill. recent. gr. 6, pulv. ari comp. ℈ſs, zingib. pulv. rhabarbar. āā gr. 5, ſyr. e cort. aurant. q. ſ. f. bolus, hydr. quotidie mane ſumend.

℞ Spec. hier. ʒʒ, aloes ℥ſs, ol. e. caryophyl. aromat. eſſ. gut. 10, ſyr. croci q. ſ. f. pilulæ doſ. N°. 5 mane.

℞ Pil. ex. colocynth. cum aloe ʒı, extr. rudii ℈ı, reſin. jalap. ℈ı, ol. e ſem. aniſ. eſſ. gut. 2, balſ. peruvian. q. ſ. f. pil. doſ. N° 4.

℞ Pil. ex colocynth. cum aloe extr. rudii āā ʒı, reſin. jalap. calomel. āā ʒı. ol. e caryophyl. aromatic. gut. 3, balſ. peruvian. q. ſ. f. pil. doſ. N° 4.

℞ Pil.

℞ Pil. fætid. gr. 15, reſin. jalap. caſtor. ſal. ſuccin. āā gr. 5, ol. ſuccin. gut. 2, ſpt. lavendul. q. ſ. f. pil. doſ. N° 5.

℞ Pil. rufi ℈1, reſin. jalap. ſal. tartar. āā gr. 5, ol. menth. piper. eſſ. gut. 1 elix. aloes q. ſ. f. pil.

℞ Pil. colocynth. cum aloe ℈iſs, extr. thebaic. gr. iſs, ol. e caryopyl. aromatic. gut. 1, doſ. N° 5.

℞ Gambog. gr. 15, ol. e bacc. junip. eſſ. gut. 2, mithridat. ℈iſs, m. f. bolus.

℞ Turpeth. rad. ℈2, reſin. jalap. calomel. āā ℈1, opii gr. 3, balſ. copaib. q. ſ. f. pil.

℞ Panaceæ antimon. gr. 4, opii gr. iſs, extract. hellebor. nig. gr. 3 m.

℞ Aloes ʒ1, ſpec. aromatic. ℈iſs, ſcammon. ℈1, ext. glycyrrhiz. q. ſ. f. pil. doſ. 5, m.

℞ Turpeth. ſenæ ſcammon. cort. inter. ebul. āā p. æ. m. f. pulv.

℞ Diagridii ceruſ. antimon. crem. tartar. mercur. dulc. in motar. bene trit. āā p. æ.

℞ Tartar. vitriol. cryſtal. tartar. āā ℥iſs reſin. jalap. ʒ2, rad. jalap. pulv. ℥ſs, m. f. pulv.

℞ Crem. tartar. ℥1, mechoacan. jalap. āā ʒ6, ebul. ſem. ℥ſs, gambog. ℥iſs, nuc. moſchat. ʒ2, m. f. pulv.

℞ Agaric. ℥ſs, ſpec. hier. ℥ſs, myrrh. ſyr. e ſpin. cervin. q. ſ. f. pil.

℞ Gum. ammon. (acet. ſcill. ſolut.) ℥2, aloes ſocotor. ʒiſs, myrrh. mari ſyriacis benzoin. āā ℥ſs, croci ſal. abſinth. āā ʒ2, conſerv. ſummit. abſinth. marit. q. ſ. f. pil.

℞ Reſin. jalap. ſcammon. rhabarb. gambog. calomel. āā ʒſs, gum. ammon. ʒj, tartar. vitriol. ʒ2, maſtich. ʒ1, croci ℈1, ſpt. terebinth. gut. 40, ſyr. e ſpin. cervin. q. ſ. f. pil.

℞ Agaric. ʒ6, rhabarb. ʒ3, croci ℥ſs, zedoar. ʒ6, lig. aloes ʒ2, mari ſyriaci aq. roſ. damaſ. ℔ 2, digere: colaturæ adde gum. ammon. myrrh. (in acet. ſcill. ſolut.) āā ℥4, aloes ℔ ſs m. coquendo inſpiſſetur & in maſſam uniformem & tenacem reducatur ut f. pil.

℞ Hellebor. nig. ℥2, colocynth. ʒ3, vitriol. ℥ſs, aq. font. ℔ 5, coq. ad conſiſtentiam mellis tunc adde ſcammon. q. ſ. f. pil.

℞ Euphorb. colocynth. agaric. ſagapen. āā ʒ2, aloes ʒ5, ſucc. ſambuci q. ſ. f. pil.

℞ Gum. ammon. (in acet. ſcillitic. ſolut.) ℥1, chalyb. cum acet. præp. extrac. ſambuc. āā ℥ſs, tartar. vitriol. aloes ſocotorin. āā ʒ2, myrrh. ʒ2, ſal. abſinth. ʒſs, croci ℈1, ſpt. cochlear. q. ſ. f. pil.

SECTION

SECTION X.

Of NARCOTICS.

UNDER this head we include all that part of the *Materia Medica*, which went formerly under the name of *Anodynes*, or *Medicines* which take away pain, and procure ſleep, containing *Paregorics*, *Hypnotics*, and *Opiates*.

Now, in order to underſtand how theſe ſubſtances produce their effects, we muſt firſt conſider the nature of pain. Pain is an uneaſy ſenſation, which accompanies the diſtention of a nervous fibre; therefore our bodies are ſubject to pain, ſo far as they are compoſed of nerves, and no otherwiſe. If we conſider the laſt component part of every nerve, there occurs only a very fine hollow membrane, compoſed of parts incredibly ſmall and minute, ſcarce changeable by fire or water, perhaps very near to the ſtate of the original atoms, and at the ſame time a fluid detained and confined in it, the thinneſt and fineſt of all others, which indeed bears no compariſon to any fluid we know.

Pain, therefore, is ſome affection either of the infinitely ſmall ſolid parts that compoſe the fibres of this membrane, or ariſing from the contained fluid, or from both. Hence we feel no corporeal pain unleſs a nerve is hurt, and that only as it contains a fluid; which is evident by cutting the nerve of a dog's leg, the dog will afterwards feel no pain in that leg, tho' you handle it never ſo roughly, or burn it by inches; and if you tie a nerve, or preſs it ſo ſtrongly as to prevent the influx of the nervous fluid to the parts below, all beneath the ligature will become inſenſible of any injury; you may bruiſe, corrode, cut, burn, or deſtroy, without exciting the leaſt degree of pain; but if the nerve is not entirely deſtroyed, according to the different degrees of injuries, different

degrees of pain are excited; hence all great pain, continuing a long time, terminates in a rupture of the veſſels, and a deſtruction of the part. Thus, from an inflammation, at length ariſes a ſuppuration and gangrene; and, from a nervous pain, (tho', properly ſpeaking, all pain is nervous) ariſes an inſenſibility; for the continuity of the laſt fibres being deſtroyed, there neceſſarily follows an extravaſation of the nervous fluid, conſequently the communication of that part with the brain, the ſeat of ſenſation, performed entirely by the circulation of this fluid, is loſt.

Every cauſe of pain ariſes from drawing, ſqueezing, diſtending or wounding a nervous fibre or fibres. All tenſion in a ſound body cauſes pain, though there is nothing acrid or corroſive, as is plain from the tortures excited by an executioner. A great diſtention of the veſſels, by the contained fluids, cauſes pain by prolonging the fibres, for though the diſtended veſſel remains the ſame as to its length, yet the fibres of the ſides are prolonged, as we ſee in painful tumours: remove only the tumour and the pain ceaſes.

All vulnerants produce pain by pricking, boring, or cutting; and, ſo long as they act, they excite pain by prolonging the fibres, but as ſoon as the nerve is cut off the pain ceaſes.

Fire, and all inviſible acrids, act after the ſame manner, for acrids have ſharp points, like knives or ſwords, whereby they are able to gnaw, prick, and cut like ſo many wedges in the ſmall points of reſiſtance: when an acrid inſinuates itſelf into the cavity of a ſmall veſſel, it fixes itſelf in its ſide; then the whole force of the fluid flowing in, which acted on the various points of the ſide, is determined to that point in which the acrid is fixed; and as the canal is elaſtic, the more it is preſſed, with the greater force it endeavours to reſtore itſelf; whence it comes to paſs, that the ballance of the oſſilatory motion is deſtroyed, and the veſſel driven into convulſive motions.

From what hath been ſaid, we diſcover three ways of eaſing pain: either by deſtroying the nerve where the pain is, which is done by rendering it no longer fit to convey its fluid; or by intercepting the communication between the part affected and the *Senſorium*; or laſtly, by rendering the brain unfit to receive any impreſſion, as in an apoplexy. The loweſt and mildeſt pain is when a nerve, or nervous fibrillæ are ſo ſtretched, that the mind may perceive that the force of the

the fibres ſtill exceeds the force uſed; whence ariſes an itching, or titillation, that is, ſomething between pleaſure and pain. The greateſt and moſt vehement pain ariſes from a prolongation of the nervous fibrillæ long continued, as near as poſſible to diſſolution, without being ſo; and the degrees and increaſe of pain depends upon the number of fibrillæ affected; for two fibrillæ, ſo affected, do not excite ſo great a pain as three.

As all pain ariſes from a diſtraction, or too great a prolongation of the fibres, ſo it differs only in degree from the firſt beginning of titillation to the laſt degree of diſtraction; and when the parts are diſſolved, pain ceaſes. Now, in order to eaſe pain, we are firſt to conſider from whence it proceeds; if from an external cauſe, it is removed by taking away that cauſe; but if it ariſes from an internal cauſe, we muſt firſt examine what that is, in order to be able to remove the pain.

The external cauſers of pain, or ſolvents, are all reddening or inflaming medicines applied to the ſkin, which obſtruct the paſſage of the blood out of the laſt arteries into the firſt veins, when the thicker part is ſtopt in them, whilſt the thinner flows through the lateral veſſels, and thus a redneſs ariſes. The cauſers of redneſs are all frictions, that is, reciprocal compreſſions and remiſſions; ſo that the canals are ſometimes cloſed, and ſometimes diſtended, which excites an agreeable ſenſation, called Titillation, or the firſt degree of pain; all fomentations, or warm applications of emollient and waſhing medicines: for a fomentation, by its warmth, leſſens the preſſure of the air, and relaxes the veſſels by its moiſtneſs, and therefore the blood enters them more copiouſly, whence ariſes redneſs; all thick plaſters that are not acrid, but tenacious and glutinous; for theſe, by obſtructing the pores, hinder perſpiration, and thence the humours are accumulated: cataplaſms of the ſame kind have the like effect; all ſuctions, whether by leeches, cupping glaſſes, &c. for, by taking away the preſſure of the air, on a particular part, and thereby encreaſing it on the circumjacent parts, it cauſes the blood to ruſh into thoſe parts on which they are applied. Heat too, that exceeds the heat of our body, increaſes the motion of the fluids. All ſtimulating acrids, which, penetrating through the epidermis, inſinuate themſelves into the mouths of the veſſels that lie immediately under the ſcarf ſkin, and fix themſelves into their ſides, and being driven by the vital motion of the fluids, ſo act upon the veſſels as to raiſe an inflammation, as all aromatic plants, in which ſalt and oil predominate, as rue, muſtard, creſſes, ſcurvy-graſs, radiſh, nettles, which are of great ſervice, applied to paralytic, languid, or benumbed limbs; alſo all ſalts and oils.

Pain too is excited by all epiſpaſtics, which are medicines which derive the fluid into the part to which they are applied with ſuch force as to burſt the moſt tender veſſels; this extravaſated liquid is retained by the unbroken cuticle which is elevated into bliſters, and therefore epiſpaſtics muſt conſiſt of acrid and ſubtile parts, which paſſing through the unhurt cuticle, can fix themſelves into the ſides of the veſſels appropriated to ſweat, tranſpiration, &c. or burſt them, but not deſtroy the cuticle; becauſe it has few, if any veſſels, but openings to receive the extremities of other veſſels, therefore the vital power in it is very ſmall. The medicines that produce the ſaid effect, are all phœnignic or reddening medicines long applied: thus, muſtard-ſeed firſt cauſes a redneſs, then a bliſter; alſo onions, garlic, horſe-radiſh, bees, fire, cantharides, all alkaline ſalts, whether volatile, or fixed acrid aromatic oils. All theſe are to be applied, where greater motion is required to diſſolve the obſtructions of the veſſels, and drive them out by ſtimulation.

Pain alſo is excited by eſcharotics which differ from veſicatories only in degree; for they deſtroy the cuticle and corrode the fleſh, and having deſtroyed the veſſels, cauſe the fluids to be poured out, and the fineſt part being fled away, there follows an inſpiſſation, then an exſiccation, and laſt of all a cruſt or eſchar, which hinders the evaporation of the liquor burſting out of the broken veſſels; when the liquor by ſtagnating becomes acrid, and by corroding penetrates farther, and deſtroys every thing like fire; for heat agitates and moves the humours, whereby a way is opened for them to evaporate by the fluid ſoftening the fibres; wherefore the aqueous, balſamic parts of the humours, being ſubtile, preſently fly off, which being removed, a moſt ſtinking, volatile, acrid ſalt breaks out, and the ſolids and fluids which remain, turn into one diſſolved and putrid maſs; after this manner act vitriol, arſenic, aqua fortis, cauſtics, &c.

Now the internal cauſers of pain are, 1. A ſemi-laceration of ſome nerve; for that part of a ſemi-lacerated nerve that remains unhurt, ſuſtains a much greater impetus or contraction, than in a ſound ſtate of a nerve, whence follows a diſtraction or prolongation: 2. Too great an inflation from a ſpaſm: 3. Too great a diſtenſion from ſome obſtruent, and the preſſing of the vital power: 4. Too great a diſtenſion from the impacting of an acrid and the preſſing of the vital power: or, laſtly, from a diſtraction of the nerves from their own elaſticity over ſome hard and impacted body, as a ſtone in the ureter. The

firſt

firſt cauſe of pain is removed by an entire deſtruction of the ſemi-lacerated nerve by the knife, fire, or cauſtic; by drawing the lacerated parts towards each other, as we ſee in wounded muſcles in pain; by ſoftening and relaxing the whole nerve by emollients and relaxers, as warm water, mealy, oily emollient decoctions in form of plaſter, fomentation, vapour, cataplaſm or bath; a large draught prepared of the ſame, all mild balſams, as balſam of *Peru*, &c. diſſolved in the yolk of an egg, and applied ſo as to reach the part affected; alſo by the parts of animals newly killed applied hot; and laſtly, by ſo changing the parts near the wound that they harden and ſpring back, and thereby perfectly diſſolve the ſemi-lacerated minute parts, which is done by the oil of turpentine, &c. but if the ſemi-laceration is in a deep part of the body, there is no hopes of a cure, unleſs the pain increaſes ſo as intirely to deſtroy the injured nerves; thus, if ſuch a pain is in the ligaments, it cannot be taken away unleſs the nerve is deſtroyed, which being performed, the pain immediately ceaſes, as in a tophaceous gout there is hardly any pain.

Thoſe which take away the ſecond cauſe, are ſuch things as remove the cauſe of a ſpaſm, which commonly ariſes from an irritating acrid, or an unequal determination of the nervous fluid, and may be either in the brain itſelf, or in the muſcular *villi*; therefore attenuating and diluting drinks, which are oppoſite to the acrid that irritates, and an increaſe of the motion of the fluids, are the chief remedies: and as opiates relax the veſſels, lightly rarify the juices of the ſtomach, and deaden the ſenſibility of the nerves, they are very effectual in allaying ſpaſms, and giving eaſe in pains occaſioned by irritation, and in reſtraining immoderate evacuations proceeding from the ſame cauſe. But they do greatly err who give opiates to ſtop immoderate diſcharges, when there is neither ſpaſm nor painful irritation, as in the colliquative diarrhæa attending hectic fevers: whereas it is evident, opiates in ſuch caſes, without producing the deſired effect, do real miſchief, by relaxing the fibres, and heating, and rarifying the fluids already too thin and broken in their texture. On the other hand, theſe medicines, by the ſame property, whereby they take off cramps in the nerves, and thus cure excretions depending upon them, will very often happily promote thoſe diſcharges which are natural, when they are unſeaſonably interrupted by violent contractions. From the rarefaction of the juices which opium occaſions, proceeds that difficulty of breathing, which they, for a time, experience, who take this kind of medicine; this ſymptom being inſeparable from the rarefaction of the blood in the lungs.

Thoſe

Thoſe which take away the third cauſe, are ſuch as relax the veſſels, reſolve an infraction, and diminiſh the projectile force of the fluids, as bleeding, and any great evacuations; alſo inciding, attenuating, reſolving, diluting medicines, baths, fomentations, &c.

The fourth cauſe of pain is taken away by ſuch methods as correct the impacted acrid, by changing its acute figure into an obtuſe one: this is done by compounding the acrid with other particles, by breaking its points, or by involving it with demulcents. The impacted acrid may be drawn out by relaxing the paſſage, diluting the liquids, and determining the matter outwards. To effect this, we muſt put the acrid matter to reſt, by diminiſhing the impetus of the circulating fluids and contractile ſolids: for unleſs the fixed acrid were compreſſed by the contractile force of the ſolids, and by the projectile force of the fluids, it would not excite pain, as of itſelf it is quite unactive. Now the contraction of the ſolids is diminiſhed by relaxing, and the impetus of the fluids by bringing them near to a ſtate of death, and by leſſening the ſtimulus of the nerves in that part, and determining it another way by friction, ſuction, cupping-glaſſes, ſcarifications, iſſues, ſetons, fiſtulas, cauteries, &c. Heat and motion of the part alſo, where there is an acrid, by their action excite pain, and ſhould therefore be removed.

Thoſe which take away the fifth cauſe, are ſuch as take away the firſt; thoſe which move and propel what is impacted, by gently lubricating, reſolving, and ſtimulating; thoſe that determine what is impacted to the place where it does leaſt hurt; thus opiates, in nephritic pains, move the urine ſtopped by gravel and ſtones, and in uterine caſes, aſſiſt nature in propelling the menſes, fætus, and lochia.

Moreover, if the pain is great, we run to opiates to mitigate it a little, and to procure a little reſt and ſleep, till we can remove the cauſe; for opiates ſuppreſs the natural cauſe of watching, by hindering the flux of the fluid thro' the nerves. Thoſe which procure ſleep, by taking away the impediments of ſleep, are all the medicines of this claſs, and innumerable others; and even medicines of a very different claſs become opiates, according as they mitigate this or that ſymptom by which ſleep is hindered; thus terreſtrial abſorbents often produce ſleep in infants affected by pain in watching, becauſe of the acid contained in their ſtomach and inteſtines. But what we have ranked under this head, procure

ſleep

ſleep by impeding the circulation of the nervous fluid, relaxing the ſolids, and deadening the ſenſibility, and irritability of the nerves.

SIMPLICIA.

FOLIA.

Cicuta. *Hemlock.*

The leaves and root are good in ſchirrous and œdematous ſwellings in any part of the body, alſo in the ſpleen and hypochondriacal inflations, and in all ſcrophulous tumours, both internally and externally. Dr. *Stork*'s method of giving hemlock in pills, made from the leaves reduced to powder, and made up with an extract prepared of them, is a moſt valuable medicine in all ſcrophulous tumours, indurated glands; and is a powerful alterant and deobſtruent in ſcurvies, leproſies, and all cutaneous diſorders.

Mandragora. *Mandrake.*

Has a narcotic quality, and ſome antient writers recommend it to be given before amputation to deaden and ſtupify the patient; it is reckoned cooling in external applications, and therefore is recommended in any inflammations of the eyes, eryſipelas, &c.

Solanum. *Nightſhade.*

Is a ſtrong narcotic, and is ſaid to be deadly in its conſequences; is very cooling, and was formerly uſed externally in inflammations and carcinomatous ulcers.

Strammoneum. *Thorn Apple.*

Dr. *Boerhaave* ſays, that the ſeeds reduced to powder and given to ʒſs in drink, diſturbs and diſorders the ſenſes, and cauſes a temporary madneſs which laſts twenty-four hours, the perſon either laughs, howls, or ſleeps, and generally talks as if to another perſon, ſo that one would think him in his right ſenſes, he knows nobody, and quite forgets what is paſt, when he comes to himſelf. Robbers have made uſe of it, and adulterous women to deceive their huſbands: the *Indian* women know how to prepare it in ſuch a manner as to diſorder the ſenſes a certain number of hours, more or leſs, according as they have a mind.

FLORES.

FLORES, &c.

Papav. Errat. *Wild Poppies.*

The juice of the poppy agrees in virtues with opium, but requires to be given in double the quantity to have the ſame effect; the extract is called *meconium.*

Paralysis. *Cowſlips.*

An infuſion of them uſed as tea, is recommended as a mild corroborant in nervous caſes and female diſorders, proceeding from a deficiency of the menſtrual purgations; it is narcotic, but in a leſs degree than poppies.

Nux Vomica.

Is chiefly uſed in killing cats, rats, &c. and is a moſt violent poiſon.

Opium. D. gr. ſs to 3.

Is brought from *Turky*, it is ſeparated from its impurities by means of water before it is uſed in phyſic, and then it is called, *opium colatum vel extractum thebaicum, ſtrained opium, or the thebaic extract*; it proves an excellent ſoporific and ſudorific, removes delirium, and nervous coughs; it diminiſhes the ſenſibility and tenderneſs of the nerves, removes ſpaſms and convulſive cramps, cholera morbus, diarrhæas, dyſenteries, convulſions in children, eſpecially thoſe convulſive ſpaſms that attend the coming of the ſmall pox in children, the *furor uteri*, checks the exceſſive diſcharges of the *catamenia*, and profuſe hæmorrhages after delivery. Opium relaxes the ſolids, eaſes pain, procures ſleep, promotes perſpiration and ſweat, but reſtrains all other evacuations; its operation is attended with a ſlow, but full pulſe, not that it raiſes the pulſe, but by relaxing the ſolids it appears fuller: for all opiates relax the ſolids, and induce a torpor and heavineſs on the circulating fluids: a dryneſs of the mouth and redneſs, and light itching of the ſkin, followed by a degree of nauſea, difficulty of reſpiration, lowneſs of ſpirits, and a weak languid pulſe are the conſequences of taking opium. The principal indications for taking of opium, are great watchfulneſs, immoderate evacuations proceeding from acrimony and irritation, cramps, and ſpaſmodic contractions of the nerves, and all violent pains; ſometimes it defeats the intention of the phyſician, and inſtead of procuring ſleep occaſions great anxiety,

anxiety, vomiting, &c. taken upon a full ſtomach it often proves emetic; and where the patient is exhauſted by exceſſive evacuations, it occaſions at leaſt extreme lowneſs. It has been obſerved to operate more powerfully in perſons of lax habits than in the oppoſite circumſtances, and is bad in colliquative diarrhæas attending hectic fevers. Alkaline ſalts diminiſh its ſoporific virtue and make it diuretic; volatile ſalts determine it to the ſkin, and acids deſtroy its power. Opium is compounded of a ſpirituous part and groſs terreſtreous reſin; the ſpirituous part may be eaſily diſſolved in water, but the reſinous requires a more convenient menſtruum, as ſpirit of wine. The virtue of opium conſiſts in cauſing ſleep by calming the motion of the ſpirits; for watchfulneſs proceeds from the too quick or irregular motion of the nervous fluid, and ſleep is procured by condenſing the nervous æther: accordingly there muſt be contained in opium, and all other ſoporifics, a certain ſubſtance that inviſcates the ſpirits, and hinders them for ſometime from circulating ſo faſt as before; and we find in opium a ſpirituous and a gummy part; but things that are mucilaginous are very fit to thicken the blood and other humours; milk, emollient decoctions, emulſions, nay all temperate aliments, do frequently incline to ſleep; becauſe they are impregnated with a gummy ſubſtance, which mixing in the blood does ſerve to agglutinate the ſpirits, and to moderate the quickneſs of their motion.

Hence we may eaſily conceive how opium procures ſleep, ſeeing it is loaded with mucilaginous parts which may be conveyed into the veſſels; for opium being received into the ſtomach, the heat of that bowel does actuate the ſpirits contained in it, which ſerves to raiſe the gummy part, and to conduct it into the little paſſages of the brain, where they either fly off by means of their volatile nature, or elſe condenſe with the moiſture of the brain.

The ſame thing happens after drinking any ſpirituous liquor, as wine, cyder, or beer; for the ſulphureous ſpirits of theſe liquors carrying with them ſome phlegmatic parts, do conduct them into the little veſſels of the brain, and cauſe ſome coagulation there; whence it comes that a drunken man ſleeps until the ſpirit of the liquor he is intoxicated with is in part ſpent, or evaporated out of the brain; but all gummy or viſcid ſubſtances do not cauſe ſleep as opium, becauſe they have not the ſame proportion of volatile ſpirits to convey them into the brain; they may indeed, by giving more conſiſtence to the blood, moderate its motion a little, and excite ſome diſpoſition to ſleep, but not ſo quickly or with ſo much force.

If you ſhould mix volatile ſpirits with gummy matters, it would not follow that they would prove narcotic as opium; becauſe the ſpirits not being capable of ſo ſtrict an union with thoſe matters, as the ſpirituous part of opium has received with its viſcous ſubſtance; they would ſoon ſeparate from each other in the ſtomach, and the gummy part would be deprived of a vehicle to convey it into the canals of the brain, which is requiſite to procure ſleep: when the viſcous part of opium hath inſinuated itſelf into the ſmall canals of the brain, it there produces a condenſation and inſpiſſation of the humours, until by little and little the ſpirits diſſolve and rarify this glue, and carry it along with the blood, then the ſleep ceaſes, and the perſon finds himſelf awake.

Reaſons may be given why opium aſſuages pains, for pain is cauſed by the agitation of the ſpirits, when therefore theſe ſpirits are condenſed, the pain ceaſes. Thoſe who have deliriums in fevers do find themſelves ſtrangely relieved by opium, becauſe the principle cauſe of deliriums is an acrid ſalt, or putrid halitus, irritating the membranes of the brain; now opium ſheaths theſe ſalts, and takes off their acrimony. But opium, given in too large a doſe, ſo condenſes and glues up the ſpirits, that all the efforts they are able to make cannot diſengage themſelves, ſo the perſon dies; for the circulation of the blood depends upon the nerves, and the involuntary operation of the nerves ariſes from the application of a ſtimulus, which throws them into ſpaſms and convulſive contractions; now whatever deſtroys the ſenſibility or irritability of the nerves, and glews up their fluids, as opium does, relaxes the ſolids, ſtops the circulation, deprives the body of all motion, and conſequently the bodily organs become unfit for the ſoul's faculties to operate upon, and the ſoul finding the body an unfit receptacle for it, quits its habitation, and the perſon is ſaid to die; for when the body without the ſoul is once deprived of motion, it muſt always remain at reſt, as it has no ſelf-moving principle within it, but is entirely governed by the laws of matter.

Opium procures ſweats, not entirely by means of its volatile parts, but during ſleep, the inward veſſels, being as it were obſtructed, and the nervous fluid finding reſiſtance in its paſſage, reflect and tend its motion to the outward parts, and draw ſome moiſture with it. Some people always ſweat when they ſleep, and *Sanctorius* has demonſtrated that all perſpire moſt in ſleep; ſo by the operation of opium, the nervous æther finding more reſiſtance within than uſual, tends outwardly with more force, and conſequently the perſon inclines to ſleep.

Laſtly,

Laſtly, From what has been ſaid, we may ſee the nature of intoxication; when a perſon drinks, for example, wines, the heat of the ſtomach cauſes the ſpirituous parts to ſpread on all ſides through the pores, and ſome part of them mix with the blood and rejoice the heart, and increaſe the vigour of the whole body; but becauſe theſe ſpirits do always tend upwards, the greateſt part flies into the brain, where it accelerates its motion, and procures a certain gaiety of mind; but if taken in too great a quantity, the ſpirituous parts riſing in great abundance do circulate in the brain with ſo much celerity, that they ſoon confound the whole œconomy; then objects will appear double, and the walls of the houſe will ſeem to move; and this confuſion remains till the ſpirits having diſſolved the phlegm do partly condenſe with it, and partly evaporate through the pores; then the perſon is prone to ſleep, becauſe the pituita being attenuated by the ſpirits, or by the phlegm they have drawn along with them, glides into the ſmall paſſages of the brain, and retards the circulation of the animal ſpirits, by condenſing them; the ſleep doth uſually remain until the nervous fluid has rarified this phlegm, and opened a free paſſage, and the more viſcid the intoxicating liquor is, the longer will the ſleep be after it; but frequent debauches render a man dull and ſtupid, for the ſpirits of the wine do diſturb the animal ſpirits in their operations, and render them phlegmatic, at the ſame time that they carry away great ſtore of them; and the perſon is ſubject to continual ſpitting, or elſe moleſted with defluctions, catarrhs, and gout; becauſe the pituita being rendered more liquid by the ſpirits and phlegm of vinous liquors, is forced to deſcend through the lymphatic veſſels; but if there happens to be the leaſt obſtacle in theſe veſſels, it takes it courſe to the nerves, and falls upon all the parts of the body, and by hindering the natural courſe of the ſpirits into the nerves, brings on obſtructions in the head, apoplexies, palſies, &c. How greatly do they miſtake who drink wine to drive away melancholy, for the tartarous part of the wine being deprived of its volatile parts, by fixing the humours about the hypocondria, brings a threefold greater melancholy upon the unhappy ſufferer.

PRÆPARATA.

TINCTURÆ.

L. Tinctura Thebaica. *Thebaic Tincture.* E. Tinctura Opii, *vulgo* Laudanum Liquidum. *Tincture of Opium, commonly called Liquid Laudanum.* D. gut. 10 to 30.

Is made of purified opium ʒ2, cinnamon, cloves āā ʒ1, white wine ℔ 1 m. macerated for a week without heat, and then ſtrained through paper. The *Edinburgh* College makes their tincture of crude opium ʒ2, *Engliſh* ſaffron ʒ1, aromatic, or cinnamon water with wine ʒ20, the tincture being extracted in a gentle B. A. is ſtrained. The quantity of ſpices is too minute to anſwer any other intention, than that of multiplying ingredients, and perplexing the preparation; for the intention of all the ſeveral preparations, under the name of Laudanum, is to convey the opium in a proper vehicle, and under ſuch a form that the required quantity of it may be aſcertained in preſcriptions. It would be endleſs to mention all the preparations of opium to be met with; moſt of them are deficient in not affording proper means of certainty, in what proportion the opium is contained in them, owing to the idle multiplicity of their ingredients.

L. Opium Colatum vel Extractum Thebaicum. *Purified Opium, or Thebaic Extract.* E. Opium Præparatum, *vulgo* Extractum Opii. *Prepared Opium, commonly called Extract of Opium.* D. gr. 1 to 4.

Is made of opium diſſolved in water, and inſpiſſated to the conſiſtence of honey. This may be given in a pill, or diſſolved in a draught.

E. Tinctura Sudorifica. *Sudorific Tincture.*

Is made of *Virginian* ſnake root ʒ6, *Engliſh* ſaffron, cochineal āā ʒ2, opium ʒ1, ſpirit of Mindererus ℔ 1, digeſted in a gentle heat for three days, and then ſtrained. This is a very efficacious medicine for the purpoſes expreſſed in its title.

E. Acetum

E. Acetum Theriacale. *Treacle Vinegar.*

Is made of *Edinburgh* treacle ℔ 1, digeſted with ℔ 4 of the beſt vinegar, in a very gentle heat for three days, and then ſtrained. This medicine has been greatly celebrated in acute and contagious diſeaſes, as a ſudorific and alexipharmic. It is undoubtedly a uſeful medicine.

SYRUPI.

L. Syrupus e Meconio, sive Diacodion. *Syrup of Meconium, or Diacodium.* E. Syrupus Papaveris Albi, seu de Meconio, *vulgo* Diacodion. *Syrup of White Poppies, or of Meconium, commonly called Diacodium.* D 3ß to ℥i.

Is made of white poppy heads dried, cut, and cleared from the ſeeds ℔ 3ſs, boiled in ſix gallons of water till one third part of the liquor remains, which will be almoſt entirely ſoaked up by the poppies; the decoction being ſtrongly preſſed out, is boiled down to ℔ 4; the liquor being ſtrained and decanted, is boiled with ℔ 6 of double refined ſugar, until the weight of the whole is about ℔ 9, and the ſyrup of a proper conſiſtence. The *Edinburgh* College prepares it of white poppy heads juſt ripe, and moderately dried ℥14, ſteeped for a night in ℔ 8 of boiling water, and the boiling continued till half the liquor is waſted, the remainder is ſtrained, and ſtrongly preſſed out, and boiled with ℔ 4 of white ſugar, to the conſiſtence of a ſyrup. Theſe ſyrups are given to children in ſmall doſes, and to adults in larger, for obtunding acrimonious humours, eaſing pain, procuring reſt, and anſwering the other purpoſes of opiates.

L. Syrupus Papaveris Erratici. *Syrup of Wild Poppies.*

Is made of wild poppy flowers freſh ℔ 4, boiling water ℔ 4ſs, ſet over a fire till the flowers are throughly moiſtened, and as ſoon as they have ſunk under the water, the veſſel is removed, and ſet by a night, next day the liquor is preſſed out, and having ſtood a night longer, is decanted from the fæces, and a proper quantity of ſugar is added to make it a ſyrup. This ſyrup has been recommended in diſorders of the breaſt, coughs, ſpitting of blood, pleuriſies, and other diſeaſes, both as an emollient, and as an opiate. It is one of the lighteſt

lighteſt opiates, and ſo weak, that ſome have doubted of its having any anodyne quality.

L. Syrupus e Floribus Paralysis. *Syrup of Cowſlips.*

This ſyrup is made of cowſlip flowers, after the ſame manner as the ſyrup of clove *July* flowers: it has an agreeable flavour, and is ſaid to be ſerviceable in nervous diſorders.

PILULÆ.

E. Pilulæ Pacificæ. *Pacific Pills.* D. gr. 3 to 10.

Are made of gum ammoniac ℥3, *Ruſſia* caſtor ℥2, *Engliſh* ſaffron, opium ää ℥1, with a ſufficient quantity of common ſyrup. This is a good and ſafe opiate, and promotes the diſcharges both by ſweat and urine; is very uſeful in aſthmas, when no other preparations of opium dare be ventured upon.

Pilulæ Matthæi, Matthews's Pills, are made of opium ℥1, caſtor ℥2, ſaffron ℥1, ſoap of tartar ℥3, made into pills with balſam of copaiba. Theſe differ little from *Pilulæ Starkei, Starkey's Pills*, which are made of opium ℥4, nutmegs, bezoar mineral ää ℥2, ſaffron, *Virginian* ſnake root ää ℥1, beat into powder, and made up into pills, with ℔ ſs of ſoap of tartar, ℥ſs of oil of ſaffron, and ℥2 of tincture of antimony. Theſe are more diaphoretic and anodyne than the former, which were likewiſe contrived by *Starkey*, and by him communicated to *Matthews*; but the laſt were the pills that *Starkey* uſed himſelf.

L. Pilulæ Saponaceæ. *Saponaceous Pills.* D. gr. 6 to 10.

Are made of almond ſoap ℥4, ſtrained opium ℥ſs, eſſence of lemons ʒ1; the opium being ſoftened with wine is mixed with the other ingredients, and made into pills. The ſoap promotes the ſolution of the opium in the ſtomach, and occaſions it to act more quickly. They are preferable to the foregoing pills, in whoſe place the *London* College has introduced them.

L. Pilulæ e Styrace. *Storax Pills.* E. Pilulæ ex Olibano. *Pills of Olibanum.* D. gr. 8 to 15.

Are made of ſtrained ſtorax ℥2, ſaffron ℥1, ſtrained opium ʒ5, beat into pills. The *Edinburgh* College makes their pills of olibanum ℥2, myrrh ℥1, opium

opium 35, balſam of *Peru* 32, with a ſufficient quantity of common ſyrup. Theſe pills are contrived for diſſolving more ſlowly in the ſtomach, than either the ſaponaceous or pacific pills.

L. Electarium e Scordio. *Electary of Scordium.*

Is made of ſpecies of ſcordium with opium, with thrice as much by weight of ſyrup of meconium, boiled to the conſiſtence of honey. This is a good opiate in fevers, &c.

L. Confectio Paulina. *Confection, called Paulina.* D. ℈1 to ℈2.

Is made of zedoary, cinnamon, long and black pepper, ſtrained ſtorax, ſtrained galbanum, and ſtrained opium, diſſolved in wine, *Ruſſia* caſtor āā ℥2, made up with thrice the weight of the other ingredients of ſimple ſyrup boiled to the conſiſtence of honey. This is *Confectio Archigenis*, brought back to its firſt form. It is a warm opiate.

L. Mithridatium sive Confectio Damocratis. *Mithridate, or the Confection of Damocrates.* L. Theriaca Andromachi. *Venice Treacle.*

Theſe two celebrated compoſitions are almoſt the only relicts of ancient ſuperſtition that now remain in the *Materia Medica*. The *Edinburgh* College has very prudently laid them aſide. The theriaca is a reform of the mithridate made by *Andromachus*, Phyſician to *Nero*. The mithridate itſelf is ſaid to have been found in the cabinet of *Mithridates*, king of *Pontus*. They both contain an enormous collection of materials, which we have not thought neceſſary to mention. The *London* College has thought proper to lop off many of their numerous ſuperfluities, but they have not been free enough with theſe venerable compoſitions, as antiquity has rendered them ſacred. Both Colleges have given elegant reformations of them.

L. Philonium Londinense. *London Philonium.*

Is made of white pepper, ginger, caraway-ſeeds, all reduced to powder āā ℥2, ſtrained opium 36, diſſolved in wine, mixed altogether, and made up with thrice the weight of all the ingredients of ſyrup of meconium, boiled to the conſiſtence of honey. This is a medicine of great power, and is capable of anſwering excellent purpoſes in the hands of a judicious Phyſician.

E. The-

E. Theriaca Edinensis. *Edinburgh Teriaca.* D. 32 to ℥ſs.

Is made of *Virginian* ſnake-root ℥10, contrayerva root ℥6, reſin of guaiacum ℥4, leſſer cardamom-ſeeds ℥2, *Engliſh* ſaffron, myrrh, opium diſſolved in canary āā ℥1, with rob of elder thrice the weight of the powder. This compoſition conſiſts of very powerful ingredients, and is doubtleſs capable of anſwering every thing that can be expected from the mithridate or theriaca.

FORMULÆ EXTEMPORANEÆ.

℞ Extr. thebaic. gr. 1, ſapon. ven. gr. 5. M. f. pil.

℞ Aq. commun. ℥1 — alexeter. ſpt. 32, ſyr. papav. errat. ℥ſs m.

℞ Aq. alexeter. ſimpl. ℥iſs — junip. comp. ℥ſs, tinct. thebaic. gut. 20 m.

℞ Opii gr. 1, extr. glycyrrhiz gr. 3, f. pil.

℞ Syr. e mecon. ℥1, aq. menth. vulg. ℥iſs, f. hauſtus.

℞ Tinct. thebaic. gut. 15, aq. cinnam. ſimpl. ℥1, ſyr. e meconio ℥1, f. hauſtus.

℞ Aq. epidem. ℥ſs—hordeat. ʒiſs. laudan. liquid. gut. 15, ſyr. papav. errat. ʒ3 m.

℞ Galban. myrrh. ſapon. alb. āā ʒ2, opii ʒ1, ſyr. ſimpl. q. ſ. f. pil. D. gr. 5 to 10.

℞ Camphor. gr. 8, extr. thebaic. gr. 2, ſyr. e cort. aurant. q. ſ. f. bolus.

℞ Pulv. contrayerv. ſal. ammoniac. āā ℈1, ſyr. ſimpl. q. ſ. f. bolus.

℞ Theriac. androm. ℈2, ſal. C. C. gr. 6, camphor. gr. 4 m. f. bolus.

SECTION

SECTION XI.

Of STERNUTATORIES.

SNEEZING is excited by any thing that ſo ſtimulates the fibres and membranes of the inſide of the noſtrils where the blood veſſels are more naked, and the nerves leſs covered than in any other part of the body, as to make them contract, whereby they twitch thoſe parts they have any communication with; which by degrees brings on a convulſion of the muſcles of the ſcapula, abdomen, and diaphragm: firſt the thorax is greatly dilated, which cauſes the air to enter the lungs in great quantity, which, after ſome time, being rarified by the heat, is driven from thence with great force through the ſtraits of the noſtrils, and is there divided into ſix parts by the bones of the noſe; and while it is driven through theſe ſtraits, it ruſhes violently upon the pituitary membrane, and moves the mucus contained in the glands, and carries it away with it. This mucus is ſeparated from the arterial blood by the pituitary membrane, which lines the whole internal nares, the cellular convolutions, the bronchæ, the ſides of the *Septum Narium*, and by an uninterrupted continuation, the inner ſurface of the *Sinus Frontales*, and *Maxillares*, and of the *Ductus Lachrymalis*, *Palati* and *Sphenoidalis*: it goes down alſo from the nares to the *Pharynx*, *Septum Palati*, &c. This mucilaginous lymph, called *Pituita* by the ancients, is in its natural ſtate, when firſt ſecreted, pretty liquid, thin and ichorous, but is ſubject to very great changes; in a ſhort time, by the power of heat, it is inſpiſſated into a thick matter, called *Mucus*. It prevents the air from drying that membrane, and ſo renders it incapable of being affected. Hence thoſe medicines which were ſaid by the ancients to purge the brain, diſcharge only the pituitous lymph ſecreted by the *Membrana Pituitoſa* from the arterial blood, before it is carried to the brain, for nothing flows from the brain itſelf, in a healthy ſtate, to the glands of the ſaid membrane. When this matter becomes viſcid, it ſtuffs up the ſinuſes whereby the veſſels are ob-

ſtructed, and become turgid, and the circulation is interrupted, which occaſions uneaſy ſenſations, pain, giddineſs, ſleepy diſorders, &c. therefore a ſtimulus from what we call ſternutatories, provoke thoſe parts to increaſe the diſcharge of ſuperfluous viſcidities through the noſe, whereby the troubleſome load is drawn off, and the head rendered briſk and lightſome. But beſides the benefit which the head immediately receives from ſuch a diſcharge, the whole conſtitution likewiſe is ſo ſenſibly affected from the ſtrong ſhaking of the body, that in many caſes it is of great ſervice. There is no motion whatever, not even that of vomiting, which ſo ſuddenly and forcibly ſhakes the whole nervous ſyſtem; ſo that in all obſtructions of finer paſſages, and particularly of the nervous fluid, whatſoever produces ſneezing muſt be of great advantage: and common experience in practice confirms this in many inſtances of paralytic, apoplectic, and lethargic caſes, and in all thoſe diſeaſes where the nervous fluid ought to be moved. This motion rouſes and enlivens the ſpirits, and, by ſhaking the moſt remote fibres, aſſiſts the proper juices in circulation, which before ſeemed to ſtagnate, or not to irritate the fibres enough to maintain their natural elaſticity: and of ſo great efficacy is this convulſion, that it is ſometimes procured on purpoſe to aſſiſt the expulſion of the fœtus in difficult labour, where the ſtrength of the mother is deficient. But if ſneezing is continued too long it brings on convulſions, head-achs, involuntary excretion of urine and ſtool, vomitings, febrile heats, hæmorrhages, and at laſt death itſelf enſues.

SIMPLICIA.

FOLIA.

Primula Veris. *Primroſe.*

The leaves have an herbaceous taſte; the roots are lightly bitter, and of aromatic flavour; the expreſſed juice, purified by ſettling, is ſometimes uſed as a ſternutatory.

Asarum. *Aſarabacca.*

The roots and leaves are brought from abroad; they have a nauſeous, bitter, acrimonious, hot taſte, and ſtrong, not very diſagreeable ſmell; given in ſubſtance from ʒſs to 1, they evacuate plentifully both upwards and downwards.

Spirituous

ſpirituous tinctures poſſeſs all its virtues. The extract, obtained by inſpaſſating theſe tinctures, acts only as an emetic, and with great mildneſs: an infuſion in water proves cathartic, rarely emetic; the aqueous decoctions made by long boiling, and the watery extract, have no purgative or emetic quality, but prove notable diaphoretics, diuretics, and emmenagogues. The principal uſe this plant is put to among us is as a ſternutatory, ſnuffed up the noſe in the quantity of gr. 1 or 2. It occaſions a large evacuation of mucus, and raiſes a ptyaliſm. The leaves are much milder than the root, and may be taken to the quantity of gr. 3, 4, or 5. It has been known to cure a paralyſis of the mouth and tongue, and is much recommended in ſtubborn diſorders of the head, proceeding from viſcid, tenacious matter; in palſies, and ſoporific diſtempers.

NICOTIANA. *Tobacco.*

It is needleſs to ſay much of this plant; the continual uſe that is made of it has made moſt people ſufficiently acquainted with it. Taken internally, it is violently cathartic and emetic; but, by boiling in water, its virulence is abated, and, although deſtroyed, an extract made by long coction is recommended as a ſafe and moſt effectual aperient, expectorant, and detergent. It ſometimes is uſed externally in unguents for deſtroying cutaneous inſects, cleanſing old ulcers, and removes hard humours of the hypochonders.

EUPHORBIUM. *Euphorbium.*

Is a gummy reſin brought from abroad; has a pale yellow colour, and vehemently acrimonious, inflaming, biting taſte; ſnuffed up into the noſe it violently affects the head, and is abſolutely unfit for internal uſe.

L. PULVIS STERNUTATORIUS. *Sternutatory Powder.* E. PULVIS CEPHALICUS, *Cephalic Powder.*

Is made of the dried leaves of aſarabacca, of marjoram, *Marum Syriacum*, dried lavender flowers āā p. æ. reduced to powder. The *Edinburgh* college directs this powder to be made of aſarabacca and marjoram, p. æ.

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manna — —	484	cathart.	℈1 to ʒſs
ſpermate ceti —	226	vulner.	℈1 to ʒ1
diatragacanthi —	134	agglut.	ʒ1 to ʒſs
ex amylo — —	159	aſtring.	ʒ1 to ʒ1
ſaponaceum —	272	deterg.	ʒ1 to ʒſs
M.			
MAgneſia alba —	165	abſorb.	gr. 8 to ʒ1
Mars *diaphoretic*, viz. Flores martiales			
ſolubilis *ſeu* chalybs tartarizatus	145	aſtring.	gr. 6 to ℈1
cum tartaro præparatus	ibid	idem	
ſaccharo præparatus	146	idem	
ſaccharatus —	142	idem	gr. 5 to ʒſs
ſulphuratus *ſeu* chalybs cum ſulphure præparatus —	146	idem	gr. 10 to ℈1
cum aceto præparatus —	147	idem	
Martis limatura præparata —	145	idem	gr. 4 to 30
Mel helleboratum — —	480	cathart.	ʒ1 to ʒ
roſaceum — —	156	aſtring.	ʒ1 to ʒ1ſs
ſolutivum — —	81	cardiac.	ʒ1 to ʒſs
Mercurius *alkalizatus* — —	269	deterg.	gr. 2 to ℈1
calcinatus *vulgo* præcipitatus ruber	260	deterg.	gr ſs to 6
corallinus — —	265	deterg.	gr. 1 to 4
arcanum corallinum —	ibid	deterg.	
panacea mercurii rubra —	ibid	deterg.	
pulvis principis —	ibid	deterg.	
corroſivus ſublimatus *vel* albus	261	deterg.	gr. $\frac{1}{19}$ to $\frac{1}{8}$
ſublimatus corroſivus —	ibid	deterg.	
corroſivus ruber —	265	deterg.	gr. ſs to ʒ
dulcis ſublimatus —	262	deterg.	gr. 2 to ℈1
ſublimatus dulcis —	ibid	deterg.	
calomelas — —	ibid	deterg.	
aquila alba — —	ibid	deterg.	
præcipitatus albus —	264	deterg.	gr. 2 to ℈1
dulcis —	ibid	deterg.	
ruber, *vide* Calcinatus			
viridis —	268	deterg.	gr. ſs to ʒ
fuſcus, vulgo *Wurtzii*	ibid	deterg.	
flavus, *vulgo* turpethum minerale —	267	deterg.	gr. 2 to 8
mercurius emeticus flavus	ibid	deterg.	
Sacchariſatus — —	269	deterg.	gr. ʒ to ℈1

	Pag.	Claſs.	Doſe.
Mercurii calx — —	260	deterg.	
panacea rubra, vide Mercurius corallinus			
ſolutio — —	ibid	idem	
Mithridaticum, *ſive* confectio damocratis	503	narcot	℈ıſs to ʒı
theriaca andromachi	ibid	idem	
Mucilago ſeminum cydoniorum —	133	agglut.	ʒı to ʒ

N.

NItrum commune —	xxvi		
cubicum — —	ibid		
fixatum — —	285	diuret.	gr. 5 to ℈ı
catharticum —	286	idem	idem
ſtibiatum — —	418	diaph.	gr. 15 to ʒı
vitriolatum —	287	diuret.	ʒı to ʒı
ſal enixum paracelſi —	ibid	idem	
arcanum duplex ſeu duplicatum	ibid	idem	
ſal dulcis Holſatiæ —	ibid	idem	

O.

OLeum amygdalinum —	197	emoll.	ʒſs to 2
palmæ chriſti —	ibid	idem	
eſſentiale baccarum juniperi ſtillatitium	221	vulner.	gut. 5 to ℈ı
e baccis juniperi	ibid	idem	
corticum limonum	184	ſternut.	gut. 1 to 10
e caryophyllis aromaticis	71	cardiac.	gut. 1 to 10
floribus chamæmeli	96	carm.	gut. 1 to 3
lavendulæ	71	cardiac.	gut. 1 to 4
macis ſtillatitium	ibid	idem	gut. 1 to 4
menthæ piperitidis	72	cardiac.	gut. 1 to 12
vulgaris	ibid	aſtring.	gut. 2 to 4
e foliis abſinthii	183	cardiac.	gut. 5 to 8
majoranæ	72	idem	gut. 1 to 2
e radice ſaſſafras	166	abſorb.	gut. 1 to 10
ex foliis pulegii	ibid	hyſter.	gut. 1 to 5
roris marini	72	cathart.	gut. 1 to 5
rutæ	116	hyſter.	gut. 1 to 5
ſabinæ	117	idem	gut. 1 to 5
e ligno Rhodio	72	cardiac.	gut. 1 to 2
Nuce Moſchata	ibid	idem	gut. 1 to 4
ſeminibus Anethi	96	carm.	gut. 1 to 4

	Pag.	Claſs.	Doſe.
Oleum eſſentiale e ſeminibus aniſi —	96	carm.	gut. 1 to 20
carui —	ibid	idem	gut. 1 to 4
cymini —	97	idem	gut. 1 to 3
Origani — —	72	cardiac.	gut. 1 to 2
ſeminum fœniculi —	97	carm.	gut. 2 to 10
Cornu Cervi — —	131	agglut.	gut. 10 to 30
Cinnamomi — —	148	aſtring.	gut. 1 to 5
Fuliginis — —	116	hyſteric.	gut. 2 to 10
Myrrhæ per diliquium —	118	diaphor.	gut. 1 to 24
Succini — —	70	cardiac.	gut. 10 to 12
Terebinthinæ, *vulgo dict. ſpiritus terebinthinæ*	221	vul.	gut. 2 to 15
Reſina flava —			
Vitrioli dicti, vide Vitriolum			
Camphoratum — —	394	diaph	gut. 5 to 15
Opium colatum, *vel* extractum thebaicum	500	narcot.	gr. 1 to 4
præparatum, *vulgo* extractum opii	ibid	idem	
Oxymel ex allio — —	225	vul.	ʒſs to 1
pectorale — —	ibib	idem	ʒiſs to 2
ſcilliticum — —	426	emet.	ʒi to ʒſs
ſimplex — —	225	vulner.	ʒſs to ʒiſs

P.

Panacea ducis Holſat. *vide* Mercurius corallinus			
mercurii rubra			
Philonium Londinenſe — —	503	narcot.	℈i to 2
Pilulæ Æthiopicæ — —	269	deterg.	gr. 10 to ℈i
aromaticæ — —	83	cardiac.	℈i to ʒſs
diambræ — —	ibib	idem	
de gambogia — —	481	cathart.	gr. 15 to ʒſs
ecphracticæ purgantes *cum aculeo* —	271	deterg.	gr. 15 to ℈i
ecphracticæ chalybeatæ —	158	aſtring.	gr. 5 to ℈i
ex colocinthide cum aloe ſimpliciores *cocciæ cum helleboro* —	481	cathart.	gr. 15 to ʒſs
communes, *vulgo* rufi —	482	idem	gr. 15 to ℈ß
e ſtyrace — —	502	narcot.	gr. 3 to 10
ex olibano — —	ibib	idem	
fœtidæ — —	121	hyſteric	℈i to 4

	Pag.	Claſs.	Doſe.
Pilulæ gummoſæ — —	121	hyſt.	gr. 10 to ʒiſs
hyſtericæ — —	ibid	idem.	
mercuriales — —	482	cathart.	gr. 10 to ʒi
laxantes —	ibid	idem.	
pectorales — —	226	vulner.	gr. 10 to ʒ2
pacificæ, *Mathæi*, *Starkei* — —	502	narcot.	gr. 3 to 10
rudii, *ſeu* extractum rudii —	482	cathart.	gr. 15 to ʒ2
ſaponaceæ — —	501	narcot.	gr. 3 to 10
ſcilliticæ — —	426	emet.	gr. 4 to ʒi
ſtomachicæ — —	188	ſtomach.	gr. 10 to ʒiſs
Poteſtates ſuccini — —	71	cardiac.	gut. 10 to 40
Pulvis *ad epilepticos de gutteta dictus*	120	hyſt.	gr. 10 to ʒ2
ad partum, vide e myrrha compoſitus			
ari compoſitus —	271	deterg.	ʒi to 2
anticardialgicus — —	169	abſorb.	ʒi
antilyſſus — —	292	diuret.	ʒiſs
Bezoardicus — —	169	abſorb.	ʒi to ʒ2
Canticanus, vide e chelis cancrorum compoſitus			
contrayervæ compoſitus —	397	diaph.	ʒi to 2
cachecticus quircitani, vide Lapis medicamentoſus — —	158	aſtring.	ʒi to ʒi
contra abortum, vide Lapis medicamentoſus	ibid	idem	ʒi to ʒ
Diaromaton —	82	cardiac.	gr. 10 to ʒ2
e bolo compoſitus cum opio, *confectio fracaſtorii*, *diaſcordium* —	168	abſorb	ʒi to 2
ſine opio —	ibid	idem	ʒ2 to ʒi
e Ceruſſa, vide Ceruſſa			
chelis cancrorum compoſitus	ibid	idem	ʒi to ʒi
canticanus — —	ibid	idem	ʒi to ʒi
Pulvis e myrrha compoſitus —	120	hyſt.	ʒi to ʒi
ſcammonio compoſitus —	480	cathart.	gr. 5 to ʒſs
ſena compoſitus —	ibid	idem	ʒi to ʒi
diaſennæ — —	ibid	idem	
ſuccino compoſitus —	82	cardiac.	gr. 10 to ʒi
tragacantha compoſitus —	134	agglut.	ʒſs to ʒ
hieræ picræ — —	271	deterg.	ʒi to ʒi
Martialis compoſitus, vide lapis medicamentoſus — —			

	Pag.	Claſs.	Doſe.
Pulvis *principis*, *vide* Mercurius corallinus			
Sternutatorius	507	ſternut.	
Cephalicus —	ibid	idem	
Stypticus, *vide* Lapis medicamentoſus			
R.			
R *Adix eryngii condita* —	204	reſtor.	
Regulus antimonii medicinalis, *vide* Antimonii præparationes			
Reſina guaiaci —	163	abſorb.	℈ſs to ʒi
Scammonii	440	cathart.	gr. 5 to 15
Rhabarbari torrefactio, *vide* Rhabarbarum			
Rob baccarum Sambuci	246	deterg.	
S.			
SAccharum roſaceum	156	aſtring.	ʒi to ℥i
ſaturni —	157	aſtring.	gr. ſs to ʒ
Sal abſinthii — —	258	deterg.	gr. 2 to ʒi
ammoniacum factitium	287	diur.	gr. x to ʒi
catharticus Glauberi, *vulgo* Sal mirabilis	474	cathart.	℥ſs to iſs
chalybis —	147	aſtring.	gr. 10 to ℈ı
Cornu cervi —	131	agglut.	gr. 10 to ℈ı
ſuccinatus	ibid	diuretic.	
Diureticus, *Tartarus regeneratus*, *Terra foliata Tartari*	288	diur.	℈ſs to ʒi
Ducis Holſtatiæ —	287	diur.	℈ı to ʒi
Enixum Paracelſi	ibid	idem	
Fuliginis — —	116	hyſteric.	gr. 3 to 15
Jovis —	182	ſtomach.	gr. 2 to 8
Martis, *vide* Chalybis			
Polychreſti —	288	diur.	ʒi to ℥ſs
Prunellæ —	287	cathart.	gr. 6 to ʒi
Sedativus —	116	hyſteric.	gr. 3 to ℈ı
Succini —	70	cardiac.	gr. 6 to ℈ı
rectificatus	ibid	idem	
Sulphuris —	258	diur.	ʒi to ℥ſs
Tartari	471	cathart.	gr. to ℈2
volatilis —	ibid	emet.	

	Pag.	Claſs.	Doſe.
Sal Vitrioli			
Gilla vitrioli }	426	emet.	gr. 3 to 3i
Pulvis ſympatheticus }			
volatilis ſalis ammoniaci	489	diur.	gr. 3 to 10
Sales neut. —	xxv		
Sal *ammoniacus vitriolici*	xxvi		
nitros			
communis			
Sal *ammoniacus vegetabilis* }			
communis }			
Digeſtivus ſilvii }	xxv		
Glauberi }			
Rupellenſis }			
Sanguis ſulphuris, *vide* Balſamum ſulphuris			
Sapo *tartareus* — —	473	diur.	gr. x to 3ſs
Philoſophorum —	ibid		
Scammonium cum ſulphure præparatum	440	cathart.	gr. 5 to 15
Serum aluminoſum —	152	aſtring.	3i to 4
ſcorbuticum	224	vulner.	3ß
Species aromaticæ			
diambræ cum adoratis }	82	cardiac.	gr. 10 to 3ß
ſine adoratis }			
e ſcordio cum opio	397	diaph.	
ſine opio	ibid		
Specificum aſtringens Colbatchei } *vide* Lapis me-			
Stypticum regale } dicamentoſus			
Spiritus *aceti*, vel *Acetum diſtillatum*, *vide* Acetum			
Alkermes —	77	card.	3ſs to 3i
Cornu cervi			
aromaticus	131	agglut.	gut. to 3iiſs
ſuccinatus			
croci	76	card.	gut. 10 to 3i
caſtorei	99	cephal.	gr. 5 to 40
cochleariæ	224	vulner.	gut. 20 to 100
aureus	ibid		
Fuliginis —	116	hyſteric.	gut. 10 to 30
Lavendulæ ſimplex	75	card.	gut. 10 to 100
compoſitus	ibid		
Mindereri — —	289	diur.	3i to 3ſs
Nitri dulcis —	289	diur.	gut. 10 to 50
Glauberi	ibid		
Roris marini —	74	card.	gut. 10 to 40

	Pag.	Claſs.	Doſe.
Spiritus ſalis ammoniaci *cum calce viva* / *ſal ammoniacum* / dulcis / *ſuccinatus*	290	diur.	gut. 10 to ʒi
Salis — —	259	deterg.	gut. 10 to ʒi.
ſalis dulcis —	ibid		
ſalis marini coagulatus	259	deterg.	
Glauberi	ibid		
ſuccini — —	70	card.	gut. 10 to ʒi
Sulphuris per campanam	257	deterg.	gut. 3 to 10
Terebinthinæ, *vide* Oleum Terebinthinæ	ibid		
Theriacalis camphoratus	393	diaph.	ʒiii to ʒi
vinoſus camphoratus, *vide* ſpiritus vinoſus			
vitrioli dulcis —	427	ſtomach.	gut. 10 to 50
æther			
fortis			
tenuis			
volatilis aromaticus	76	card.	gut. 6 to 6
ſalinus aromaticus	ibid	idem	
ſal volatile oleoſum	ibid	idem	
volatilis foetidus —	119	hyſterc.	gr. 10 ʒi
Stannum pulveratum —	181	ſtomach.	℈ſs to ʒi
Succi ſcorbutici — —	224	vulner.	℈ſs to i
Succus prunorum ſylveſtrium, vide *Acacia Germanica*			
Sulphur antimonii præcipitatum, *vide* Antimonii præparationes			
præcipitatum	255	deterg.	gr. 10 to ʒi
Syrupus *acetoſus* —	180	ſtomach.	℈ſs to ʒi
ex allio —	225	vulner.	
althæa —	197	emoll.	℈ſs to i
artemiſiæ —	110		
e corticibus aurantiorum	188	ſtomach.	ʒi to ℈ſs
Balſamicus —	209	reſtorat.	ʒſs to ℈ſs
compoſitus	ibid	idem	
capillorum veneris	202	pect.	
caryophyllorum rubrorum	80	cardiac.	ʒi to ℈i
e caryophyllis aromaticis	ibid	idem	
croci — —	80	cardiac.	ʒ2 to ℈i
cordialis —	80	cardiac.	ʒ2 to ℈i
cydoniorum	155	aſtring.	ʒ2 to ℈i
de cinnamomo —	141	aſtring.	

	Pag.	Claſs.	Doſe.
Syrupus De roſis ſiccis	156	aſtring.	ʒi to ℥i
Sena & rheo —	479	cathart.	
Diacodion, *vide* e Meconio			
e floribus paralyſis	501	narcot.	ʒi to ℥ſs
Spina cervina —			
de ſpina cervina, *ſeu* rhamno cathartico	479	cathart.	
Meconio, *ſeu* Diacodium			
Papaveris albi, *ſeu* de Meconio, *vulgo* Diacodium	501 ibib	narcot. idem	ʒi to ℥i
e ſucco limonum —	188	ſtomach.	ʒi to ℥ſs
Limacum, *vide* pectoralis			
Papaveris erratici	501	narcot.	ʒi to ℥i
Pectoralis —	210	reſtorat.	ʒi to 4
Reſtringens	157	aſtring.	ʒi to ℥i
Roſarum ſolutivus	479	cathart.	ʒi to ℥i
Scilliticus — —	425	emet.	ʒi to ℥i
ſimplex	198	emoll.	℥i to 2
violarum —	466	cathart.	ʒi to ℥ſs
Zingiberis —	80	cardiac.	ʒi to ℥ſs
T.			
TAbellæ *diatragacanthi*, *vide* Trochiſi albi			
bechici			
cardialgicæ	169	abſorb.	℈i to ʒ2
Tartarum emeticum, *vide* Antimonii præparationes			
ſolubile	473	cathart.	℈i to ʒ2
chalybeatum	ibid	idem	
vitriolatum	473	cathart.	gr. 10 to ℥ſs
ſal vitrioli catharticum	ibid	idem	
Tartarus regeneratus —	288	diur.	℈ſs to ʒ1
Terra foliata tartari —	ibid	idem	
Theriaca Andromachi —	503	narcot.	℈ſs to ʒ1
Edinenſis	504	narcot.	℈ſs to 2
Tinctura amara —	185	ſtomach.	℥ſs to 1
antiphthiſica, *vide* Saturnina			
aſthmatica, *vide* Elixir Paregoricum			
Antimonii, *vide* Antimonii præparationes			
Aromatica, *vulgo* Salutifera	78	cardiac.	ʒi to 2
Balſamica — —	206	reſtorat.	gut. 10 to 30

	Pag.	Claſs.	Doſe.
Tinctura *Benzoini*	205	reſtorat.	gut. 10 to 30
Bezoardica	396	diaph.	
Elixir Bezoardicum	ibid	idem	
cantharidum	291	diuret.	gut. 15 to 30
cardamomi	98	carmin.	31 to ℥1
caſtorei	98	carmin.	gut. 10 to 60
cephalica	78	cardiac.	31 to 3
purgans	474	cathart.	31 to ℥3
cinnamomi	152	aſtring.	31 to ℥3
corticis peruviani ſimplex	395	diaph.	31 to ℥ſs
compoſita			
volatilis			
croci	78	cardiac.	31 to 3
fœtida	118	hyſteric.	gut. 10 to 40
fuliginis	119	hyſteric.	gut. 10 to 31
florum Martialium	153	aſtring.	31 to 33
guaiacina volatilis	166	abſorb.	gut. 20 to ℥ſs
helebori nigri	474	cathart.	gut. 10 to 100
Jalapii	475	cathart.	31 to ℥ſs
compoſita	476	cathart.	32 to ℥1
Japonica	153	aſtring.	31 to ℥3
Ipecacoanhæ	425	emet.	32 to ℥iſs
Laccæ	153	aſtring.	℥ſs to 2
Martis	154	aſtring.	gut. 10 to 32
in ſpiritu ſalis			
extractum martis aperiens			
aſtringens			
Mellis	195	balſam.	gut. 40 to 31
Menthæ	152	aſtring.	31 to ℥iſs
Melampodii	474	cathart.	gut. 10 to 50
Myrrhæ	118	hyſteric.	gut. 15 to 31
et Aloes	118	hyſteric.	gut. 5 to 15
Nitri	289	diur.	gut. 20 to 60
Opii, *vide* Thebaica			
Regina	79	cardiac.	gut. 1 to 2
Rhabarbari ſpirituoſa	186	ſtomach.	℥ſs to ℥ſs
vinoſa	ibid	idem.	
Rhei amara	186	ſtomach.	℥ſs to ℥ſs
dulcis	ibid	idem	
Roſarum	152	aſtring.	32 to ℥4
ſacra	475	cathart.	31 to ℥3
Salutifera, *vide* Aromatica			

	Pag.	Claſs.	Doſe.
Tinctura *Salis Tartari* — —	472	diuret.	gut. 10 to 60
Saturnina — —	155	aſtring.	gut. 20 to 30
Senæ — —	476	cathart.	ʒi to iſs
compoſita, *vulgo* Elixir ſalutis	ibid	idem	
Sulphuris — —	257	diaph.	gut. 30 to 40
Serpentariæ — —	394	diaph.	ʒſs to 1
Stomachica — —	185	ſtomach.	ʒi to ʒi
ad Stomachos — —	ibid	idem.	
Stomachica amara —	186	idem	ʒſs to ʒ2
Succini — —	79	cardiac.	gut. 10 to 100
ſudorifica — —	500	narcot.	
Styptica — —	153	aſtring.	gut. 10 to ʒi
Tolutana — —	206	reſtorat.	ʒi to 2
Thebaica — —	500	narcot.	gut. 10 to 30
Opii — —	ibid	idem	
Theriacalis — —	393	diaph.	ʒ2 to ʒſs
Valerianæ ſimplex —	395	idem.	ʒſs to 1
volatilis —	396	idem.	gut. 30 to ʒʒ
veneris volatilis —	414	emet.	
Veratri — —	476	cathart.	gut. 5 to ʒi
viperarum compoſita —	207	reſtorat.	gut. 10 to 60
Trochiſci bechici albi nigri *flavi* *rubri* Tabellæ diatragacanthi	134	agglut.	ʒi to ʒi
cardialgicæ — —	169	abſorb.	℈i to ʒ2
e nitro — —	292	diuret.	ʒſs to ʒſs
Scilla — —	426	emet.	
Sulphure — —	272	deterg.	ʒi to ʒſs
Diaſulphuris —	ibid	idem	
Terra japonica —	159	aſtring.	ʒi to ʒſs
Catechu — —	ibid	idem.	
viperini pro theriaca andromachi, *vide* Vinum viperinum			
Turpethum minerale, *vide* Mercurius emeticus flavus			

	Pag.	Claſs.	Doſe.
V.			
VInum aloeticum alkalinum —	477	cathart.	ʒi to ℥ſs
elixir proprietatis Helmontii	ibid		
amarum — —	185	ſtomach.	ʒi to ℥i
antimoniale, *vide* Antimonii præparationes			
chalybeatum —	154	aſtring.	ʒi to ℥ſs
croceum — —	78	cardiac.	ʒi to ℥ſs
ipecacoanhæ —	425	emet.	ʒi to ℥iſs
mille pedatum — —	284	diuret.	℥ſs to 2
ſcilliticum — —	425	emet.	ʒi to ℥ſs
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A

GENERAL INDEX

OF

DISEASES AND REMEDIES.

A.

ABORTION, *to prevent.* Chalybeates, balſams, kermes, Peruvian bark, tincture of amber, confection of kermes, bitters, aſtringents, decoction of oak bark, ſtomach pills, alum powder with dragon's blood, cold bath, venæſection, opium, looſe cloaths, reſt, lenitive electary, or other cooling gentle phyſic to prevent coſtiveneſs, ſtrengthening plaſter.

—*to procure.* Cantharides, aloes, all ſtimulating cathartics, all detergent hyſterics, tinctura ſacra with ſalt of ſteel, elixir proprietatis with cathartic extract, Rufus's and gum pills, chalybeate pills, extract and tincture of black hellebore, laxative mercurial pills, compound powder of myrrh, tincture of myrrh, tincture of myrrh with aloes, opening a vein in the foot, violent exerciſe, as leaping, running, jumping, the pediluvium, immoderate laughing immediately after conception, all relaxing fomentations, cataplaſms, plaſters, and peſſaries applied to the groin, acrid vapours received into the womb, as the ſteam of urinous alkaline ſalts, of ſpirit of ſal ammoniac mixed with hot water, or the ſteam of urine and quick-ſilver ſet over the fire.

ABSCESS *of the Lungs*, vide PERIPNEUMONY.

ABSORBENTS. Page 161, 439.

ABSORPTION. Page 439.

ACIDITY, *to abſorb.* Calcined hartshorn, crabs eyes and claws, magneſia alba, calcined ſhells, all calces, filings of iron, chalk, oyſter ſhells, and ſuch other ſimple earthy bodies as diſſolve in acids, as the abſorbent earth, calomel, demulcents and alkalines, fixed alkaline ſalt of wormwood and tartar, volatile alkaline ſalt.

ſalt.—Julep of chalk, chalk bolus, compound powder of bole with and without opium, ſpirit of ſal ammoniac, of hartſhorn and of ſoot, powder of crabs claws, cardialgic troches and lozenges, powder againſt the heart-burn, white decoction.

ACRIDS. Page 20.

ACRIMONY, *to obtund.* Expreſſed oil, oily draughts, ſperma-ceti, gum arabic, gum tragacanth, marſhmallow roots, comfry roots, and decoctions of them, linſeed, quince ſeeds, maiden hair, bolar earths, eryngo, ſatyrion, liquorice, and other glutinous and mucilaginous ſubſtances, emollients, demulcents, alkalines with regard to acids, and acids with regard to alkines, cinquefoil, opium, nitre.—Infuſions of linſeed, pectoral decoction, ſyrup and electary, white decoction, compound white decoction, mucilage of quince ſeeds, compound powder of gum tragacanth, white and black pectoral troches, troches of Japan earth, lohoch of ſtarch, julep of chalk, compound powder of bole with and without opium, compound powder of crabs claws, cardialgic troches and lozenges, oil of almonds, and emulſions of almonds, common and arabic emulſion, lohoch of linſeed, paregoric elixir, pectoral elixir, ſyrup of balſam, lohoch of ſpermaceti, alſo mercurials.

AIR. Page 301.

Mephriticus. Page 304.

AFTER PAINS, *vide* PAIN of CHILDBED.

AGGLUTINANTS. Page 162.

AGUE. Page 235, *vide* FEVER.

ALEXIPHARMICS, *vide* DIAPHORETICS.

ALTERATIVES, *vide* DETERGENTS.

ANASARCA. Page 9, *vide* DROPSY.

ANGINA, *vide* QUINCY.

ANIMALS. Page xii of Introduction.

ANODYNE, *vide* PAIN to EASE.

ANT. Page 36.

ANTHELMINTHICS, *vide* WORMS.

ANTIEPILEPTIC, *vide* EPILEPSY.

ANTIHECTIC, *vide* PHTHISIS.

ANTIHYSTERIC, *vide* HYSTERIC.

ANTISCORBUTIC, *vide* SCURVY.

ANTISEPTICS. Dulco-acid fruit, as cherries, chamomile, ſugar, all ſalts, bitters, aſtringents, Peruvian bark, myrrh, contrayerva root, camphor, Virginian ſnake-root, ſpiritus mindereri, rue, aſa-fœtida, ſcurvy-graſs, cold air, cold water, cold bath, horſe-radiſh root, muſtard-ſeed, aloes, &c.

ANTISPASMODIC, *vide* SPASM.

ST. ANTONY's FIRE. Glauber's ſalts, bitter purging ſalt, ſaline cathartic draught, ſpirit of Mindererus, infuſion of ſena, cream of tartar, cryſtals of tartar, all cooling phyſick—*Externally*, elder ointment, ointment called nutritum, ointment of tutty with camphor, camphorated white ointment, ſaturnine ointment, camphorated cataplaſm, camphorated ſpirit of wine, emollient cataplaſm, anodyne fomentation, aromatic fomentation, &c.

APERIENTS, *vide* DETERGENTS.

APHRODISIAC, *vide* LUES VENERIA.

APHTHÆ. Page 24. Antimonial emetics, bliſters, emollient and de-

tergent gargariſms, calcined harts-horn, cinnabar, rectified ſpirit of wine.

APOPLEXY. Page 9. Roſemary, miſletoe, wall-flower, compound ſpirit of lavender, clove and coſtus electary, tincture of caſtor, fœtid pills, elixir of vitriol, preparations of the bark, antimonials, hellebore, venæſection, preparations of valerian, all volatiles, and volatile alkaline ſalts, ſinapiſms, bliſters, iſſue, purging clyſters, clyſters with honey of hellebore, ſternutatories, as ſternutatory powder, cephalic powder, aſarum, white hellebore, muſk, aſa-fœtida, camphor, volatile ſpirits, as compound ſpirit of lavender externally.

APPETITE, *to promote.* Bark, ſage, muſtard, nutmeg, wormwood, carduus benedictus, gentian, feverfew, zedoary, rhubarb, orange-peel, mint, orange and lemon juice, chamomile tea, lime water, all the preparations of the bark, a gentle emetic, elixir of vitriol, ſimple bitter infuſion, bitter wine, ſtomach tincture and elixir, dulcified ſpirit of vitriol, extract of chamomile flowers, various bitter infuſions, tincture of rhubarb, ſacred tincture, or two or three grains of aloes half an hour before dinner, &c.

ARISTOLOCHIA, *vide* EMMENAGOGUE.

AROMATICS, *vide* CARDIACS.

ARTHRITIC, *vide* GOUT.

ARTERIACS, *vide* VULNERARIES.

ASCITES, *vide* DROPSY.

ASTHMA. Ammoniacum, ſquills, garlic, ſoap, millepedes, aſa-fœtida, muſtard, ſulphur, flowers of benzoine, balſam of Peru, penny royal, marjoram, wild marjoram, myrrh, ſagapenum, white archangel, plantane, burnet ſaxifrage, red roſes, linſeed, maiden-hair, colt's-foot, balſam of Tolu, ſtorax, ground-ivy, hore hound, Jeruſalem oak, hedge muſtard, hyſſop, ſpeedwell, figs, raiſins, copaiba, opobalſamum, ſoapwort, arum, liquorice, elecampane, Armenian convolvulus root, diaphoretic antimony, bark, bliſters, iſſues, gentle antimonial and ſquill vomits, ipecacoanha from gr. 4 to 8 every morning, milk of ammoniac, vinegar, oxymel, ſyrup and pills of ſquills, and garlic, pectoral pills, water againſt a conſumption, ſnail water, martial flowers, oil of ſaſſafras, balſamic tincture of Tolu, paregoric elixir, pectoral elixir, pectoral electary, Locatelli's balſam, lime-water, pectoral oxymel, ſimple oxymel, pectoral pills, all preparations of ſulphur, alkaline ſalts, corroſive mercury ſublimate, and all the ſtronger mercurial preparations, compoſitions of the bark, antimony, gum ammoniac, ſquill and paregoric elixir made up with ſaffron wine, alſo aſa-fœtida, gum ammoniac, ſalt of wormwood, and ſyrup of ſquills made up with aromatic water, julep of gum ammoniac, julep of ſquills, tincture of myrrh with and without aloes, &c.

ASTRINGENTS. Page 138.

ATRABILIS. Page 445.

ATROPHY. Page 10. Aromatics, ſteel wine, ſoap with rhubarb, bark with antimony, elixir of aloes, bitter infuſion

infuſion and tincture, ecphratic deobſtruent pills, pectoral pills, tincture of rhubarb, ſacred tincture with and without ſalt of wormwood, ſtomach elixir and tincture, elixir of vitriol, ſugar'd ſteel, ſea water, cold and ſea bath, &c. *vide* CACHEXY.

ATTENUANTS. P. 12. *vide* DETERGENTS.

ATTRITION. Page 14.

B.

BALLANCE. Page 3.

BALSAMICS. Page 193.

BARRENNESS, *vide* CONCEPTION.

BELLY-ACH, *vide* GRIPES.

BILE. Page 442. *to purge.* Gum ammoniac, ſoap, bolus of mercury with rhubarb, ſacred tincture with ſal polychreſt, or ſalt of wormwood, infuſion of ſena with emetic tartar.

PURGERS *of.* Page 445.

CHOLAGOGUES. Page 445.

MELENAGOGUES. Page 445.

BIRTH, *to haſten, vide* DELIVERY.

BITE OF A MAD DOG, *to cure.* Salivation, cauſtic, oil of olives rubbed warm upon the part, ſalt, onions externally, muſk, cinnabar, turpeth mineral, powder againſt the bite of a mad dog, &c.

BLEEDING, *to ſtop, vide* HÆMORRHAGE.

BLOOD. Page 6, *coagulated, vide* BRUISE.

——— *to purify.* Guaiacum, ſaſſafras, ſarſapailla, agrimony, groundivy, ſcurvy-graſs, fumitory, watercreſſes, butcher's broom, ſpeedwell, birch wine, all alteratives, mercurials, antimonials, oil of ſaſſafras, volatile tincture of guaiacum, whey, lime water, decoction of the woods, all antiſcorbutics and antiſeptics.

——*ſpitting of.* Venæſection, amber, ſhepherd's purſe, plantane, nettle-roots, galls, acacia, horehound, liquorice, cinquefoil, Peruvian bark, lime-water, ſtyptic powder, compound powder of gum tragacanth, troches of Japan earth, lohoch of ſtarch, compound powder of bole, with and without opium, cardialgic troches, and lozenges, common and arabic emulſion, ſyrup of marſhmallows, lohoch of linſeed, balſamic tincture, tincture of tolu, paregoric elixir, pectoral decoction, pectoral ſyrup, pectoral electary, Locatelli's balſam, lohoch of ſperma-ceti, ſpirit of ſulphur, ſpirit of ſea ſalt, dulcified ſpirit of vitriol, tincture of roſes, ſea-water, ſea-bath, ſtyptic powder, Peruvian electary, opiates, decoction of tamarinds, &c.

BODY. Page 2. *human.*

BOILS, *to ripen.* Poultice of bread and milk, ointment of marſhmallows, diachylon plaſter with gums, plaſter of mucilages, melilot plaſter, all ripeners.

BOLUSES. P. xxxvii of introduction.

BRACERS, *vide* CORROBORANTS.

BREAST, *diſorder of.* Saffron, balſam of amber of Bates, penny-royal, aſafoetida, gum ammoniac, olibanum, burnet ſaxifrage-root, maiden-hair, colts-foot, ſtorax, tolu, groundivy, ſperma-ceti, garlic, horſeradiſh, ſcurvygraſs, muſtard, Jeruſalem oak, hyſſop, raiſins, extract of elecampane, ſoap wort, Barbadoes tar, ſulphur, myrrh, oil of aniſeed, traumatic balſam with aromatic tincture.

BRONCHOCELE,

BRONCHOCELE, *vide* DROPSY.
BRUISE. Madder, ſperma citi, balſam of copaiba, Locatelli's balſam, balſam of Peru, oily draughts, lime-water, Peruvian bark, camphorated julep, with ſpirit of mindererus and balſam of copaiba, &c. *Externally*, Aſhes, ſalt, ſoap, lye, camphorated ſpirit of wine, opodeldock, venæſection, and gentle cooling phyſic.
BUBOES. Suppurating cataplaſm, mercurial plaſter, &c. *vide* GONORRHÆA
BURIALS. Page 35. *To regulate.*
BURNS. Traumatic balſam, ointment of elder, ſaturnine ointment, camphorated ſpirit of wine, camphorated oil, white ointment, emollient ointment, ointment called nuritum, white ointment camphorated, bees-wax incorporated with oil by boiling.

C.

CACHEXY. Muſtard, ſaffron, myrrh, gum ammoniac, ſaſſafras, golden rod, juniper-berries, agrimony, celandine, elder, broom, tanſy, copaiba, madder, chalybeate pills, mercurial pills, prepared antimony, cinnabar of antimony, emetic tartar, antimonial wine, the ſtrongeſt preparations of mercury with tincture of cantharides, camphor and rob of elder, æthiops mineral, æthiopic pills, bark, bitters, bolus of mercury with rhubarb, tar-water, chalybeate-water, ſea-water, cold or ſea bath, ſal polychreſt, gum pills with aloes, ſacred tincture with or without emetic tartar, or ſalt of wormwood, elixir proprietatis with ſal prunel, clove and coſtus electuary, decoction of the woods, compound powder of gum tragacanth, white and black pectoral troches, ſteel and its preparations as ſalt of ſteel, bitter infuſion, balſamic tincture, compound horſe-radiſh water, ſpirit of ſulphur, elixir of vitriol, elixir againſt melancholy, bitter tincture of rhubarb, ſtomach elixir, ſugar'd ſteel, ſteel wine, ſtomach pills, aperient diet drink, whey, butter milk, emetics, &c.
CALCULUS, *vide* NEPHRITICS.
CANCER. P. 9. Fomentation, pultice extract and powder of hemlock, corroſive mercury, the ſtrongeſt preparations of mercury and antimony, gentle alteratives, with the bark, vegetable æthiops, ſea-water, and ſea bath, &c.
CARBUNCLES. Emollient, cataplaſm, pultice and ointment, yellow baſilicon, gentle cooling phyſic.
CARDIACS, CORDIALS, CEPHALICS. Page 51.
CARDIALGIA, *vide* HEART-BURN.
CARMINATIVES, Page 89.
CATAMENIA, *vide* MENSES.
CATARRH, Gum arabic, ſperma-ceti, ſulphur, balſam of ſulphur, conſerve of roſes, myrrh, gum tragacanth, Japan earth, maſtich, guaiacum, maiden-hair, colts-foot, elecampane, benzoine, liquorice, ſaſſafras, linſeed, balſam of Tolu, marjoram, lilly of the valley, garlic, compound juniper-water, oily draughts, pectoral decoction, white decoction, arabic emulſion, paregoric elixir with alteratives, ſea-water, ſea bath, bitter infuſion, with ſena, &c. *vide* ACRIMONY, to obtund.
CATHARTICS. Page 429.
ECCOPROTICS. Page 445.
PHLEGMAGOGUES

PHLEGMAGOGUES. Page 448.
HYDRAGOGUES. Page 452.

CHAPS. Oil of wax, white ointment, pomatum

CHILBLAINS. Palm oil, diachylon plaſter, warm plaſter, &c.

CHINCOUGH. Ipecacoanha, ſquills, rhubarb bolus with mercury, ammoniac, copaiba, opium, paregoric elixir, maiden-hair, pectoral decoction, ſpermaceti with emetic tartar, ſalt of wormwood with aſafœtida and ammoniac, Peruvian bark, bitters, bliſters, country air, &c.

CHLOROSIS, *vide* GREEN SICKNESS.

CHOLER, *vide* BILE.

CHOREA SANCTI VITI, *vide* ST. VITUS's DANCE.

CHRYSALIDES. Page 36.

CHYLIFICATION. Page 175, 439.

CIRCULATION. Page 31. *To promote.* Cordials, aromatics, carminatives, exerciſe, friction, bath-water, ſteel-water, joy, anger, bark bitters, ſpirits and ſpirituous liquors, volatile ſalts and diſtilled oils, diaphoretics, all acrids and ſtimulating medicines, removing a plethora by depletion, bliſters, &c.

—*to retard.* Fear, dejection and melancholy, all relaxers, immoderate evacuation and depletion, diſtilled mineral acids, much fruit, abſtinence, much water, or ſmall drink, venæſection correctors of acrimony, &c.

CLAP, *vide* GONORRHÆA.

COAGULATERS. Page 17.

COAGULATION. Page 10.

COLD. Page 10.

CHOLIC, *flatulent.* Pepper mint, ſweet-ſcented flag, tartarized ſpirit of wine, chamomile, volatile alkaline ſalt, dill-ſeed, zedoary, ginger, ſpear mint, aniſeed, bay berries, calamint, aſafœtida, garlic, ſaſſafras, eſſential oil of mace, oil of pepper mint, aromatic water, aromatic tincture, aromatic pills, gum pills, oil of dill-ſeed, oil of cummin-ſeed, electuary of bay-berries, volatile tincture of guaiacum, ſtomach pills, balſam of guaiacum, ſacred tincture with ſalt of wormwood, bolus of rhubarb with mercury, camphor with electuaries of bay-berries and ſcordium, elixir of health, ſaline draught, emollient clyſters, &c.

—*ſpaſmodic.* Opium, muſk, caſtor, galbanum, aſa-fœtida, ſtinking orach, paregoric elixir.

—*bilious.* Nitre with ſacred tincture, linſeed, oil and emulſions of almonds, ſperma-ceti, marſhmallows, all expreſſed oils without heat, as oil of the palma chriſti, ſal prunel and ſal polychreſt, Glauber's purging ſalt, ſtinking orach, infuſion of ſena with emetic tartar, clyſters of oil, ſoap and ſalt, vitriolated nitre, all bitters, cloves and coſtus electuary, cream of tartar and ſacred tincture, tincture of ſena with ſal polychreſt and elixir proprietatis, tinctura ſacra with Glauber's purging ſalt, anodyne draught with Glauber's ſalt, anodyne bolus with lenitive electuary and cathartic extract, an emetic of ipecacoanha, paregoric elixir.

COMMENSURATION or COMMIXTION. P. xxxiii. of introduction

CONCEPTION, *to promote.* Aromatics, bitters, bark, ſteel-water, bath-water, ſea and cold bath, ſacred tincture, tincture of cantharides, ſteel and all its preparations, &c.

CONSERVES.

CONSERVES. Pag. xxxii of Introduction.

CONSUMPTION. P. 329. Maiden-hair, colt's-foot, vipers, ſnails, whey, butter-milk, pine tops and nuts, elder, copaiba, elecampane, water againſt a conſumption or ſnail-water, tincture of roſes, lime-water, gentle cooling phyſic, ſea-water and ſea-bath, troches of Japan earth, antimony, mercury, elixir of vitriol, balſam of guaiacum, ammoniacum julep, julep with ſquills, common and arabic emulſion, lohochs of linſeed, tincture of Tolu, balſamic tincture, paregoric elixir, pectoral ſyrup, conſerve of roſes, ſyrup of ſnails, ſpirit of ſulphur, calcined mercury, corroſive mercury ſublimate, and all other ſtrong preparations of mercury and antimony, with opium, camphor, copaiba, tincture of cantharides wrapped up with a large quantity of balſamic, Peruvian bark, venæſection, muſk with antimonium ſtibiatum and the bark, change of air, ſea voyage, lime-water, tar-water, briſtol-water, &c. *vide* Peripneumony.

CONTRACTION. Hot bath, fomentations, dry pump, bliſters, ſea-bath, camphorated ſpirits, emetics, alteratives, &c.

CONVULSION. Muſk, caſtor, aſa-fœtida, pæony, opium, miſletoe, black-cherry water, cinnabar, compound ſpirit of lavender, tincture of caſtor, compound elixir of myrrh, antiepileptic powder, fœtid pills, ſpirit and ſalt of hartſhorn, tincture of valerian, frequent emetics, bliſters, iſſues, cataplaſms, pediluvium, cold bath with the bark and a long courſe of the ſtrongeſt mercurials and antimonials with ſtrong fœtid cordials.

COOLERS. Pag. 16.

COSTIVENESS, *to remove*. Marſh-mallows, ſtinking orach, mercury *herb*, Peruvian bark, ſalt of wormwood, cream or cryſtals of tartar, ſal prunellæ, aloes, ripe fruit, ſea-water, aromatic pills, vitriolated tartar, ſacred tincture with ſalt of wormwood, Glauber's purging ſalt, magneſia alba, expreſſed oil, lenitive electary, ſolutive ſyrup of roſes, &c.

CORRECTOR, *of cathartics*. Cloves, pepper, mace, liquorice, almonds, crab's claws, all carminatives.

CORROBORANTS. Pag. 126.

COUGH. Pag. 358. Oily draughts, pectoral infuſions, gum tragacanth, gum arabic, opium, red roſes, maſtich, linſeed, marſhmallows, almonds, maiden-hair, colt's-foot, hips, balſam of Tolu, benzoine, ſtorax, horehound, ſpermaceti, Jeruſalem oak, hedge-muſtard, hyſſop, jujebs, raiſins, copaiba, rob of elder in white wine whey going to bed, mucilage of linſeed, ſpermaceti boluſes with emetic tartar, ſpiritus Mindereri with ſyrup of ſquills, liquorice, elecampane, ſulphur with cream of tartar and honey, troches of Japan earth, compound powder of bole with and without opium, cardialgic troches and lozenges, gum ammoniacum, aſa-fœtida and ſalt of wormwood, paregoric elixir, pectoral decoction, balſamic ſyrup, pectoral ſyrup, tar-water, lohoch of ſperma-ceti, ſalt of wormwood, ſaponaceous

naceous lohoch, oil of aniſeed, milk of ammoniac, Matthews's pills with ſquills, compound powder of gum tragacanth, white and black pectoral troches, oil of ſaſſafras, oil of almonds, compound and arabic emulſion, lohoch of linſeed, flowers of benzoine, balſamic tincture, tincture of Tolu, pectoral electuary, Locatelli's balſam, common lohoch, pectoral oxymel, ſimple oxymel, oxymel of ſquills, ſyrup of ſquills, every preparation of ſulphur.

COURSES, *vide* MENSES.

CRAMP. Rectified ſpirit of wine with and without camphor, Venice treacle with camphor, muſk, ſulphur, diaphoretic antimony.

CRAPULA. Cathartic pills, emetics, ſacred tincture, elixir proprietatis with cathartic extract, Rufus's pills, gum pills with cathartic extract, aloes, &c.

CRASSAMENTUM. Pag. 6.

CRYSALIDES. Pag. 36.

CUTANEOUS AFFECTIONS, *vide* ITCH.

D.

DEBILITY. Balſam of Peru, aloes wood, ginger, amber, roſemary, ſage, Japan earth, tincture of yellow ſaunders, ſtorax, agrimony, groundivy, muſk, cordials, bitters, aſtringents, oil of lavender, cephalic balſam, oil of cinnamon, bark, ſteel, ſteel-water, bath-water, cold and ſea bath, volatile tincture of guaiacum, balſam of guaiacum, compound juniper water. *Vide* CONCEPTION.

DECOCTIONS. Pag. xxxv of Introduction.

DEFLUXION. Muſtard, myrrh, gum tragacanth, red roſe, Japan earth, marſhmallows, mercury, pellitory of the wall, linſeed, ſperma-ceti, liquorice, maiden-hair, hips, balſam of Tolu, ſtorax, ſatyrion, jujubs, &c. *Vide* CATARRH.

DELIRIUM, Caſtor, ſal ſedativus, opium, nitre, camphor, muſk, depletion, pediluvium, cataplaſms of garlic, &c. to the feet, bliſters to the feet and ancles, iſſues, ſeatons, antimonial emetics.

DELIVERY, *to aſſiſt*. Powder to promote delivery, emmenagogues, wormwood, angelica, opium, cordials, myrrh, muſk, aloes, betony, ſaffron, kermes, compound elixir of myrrh, gum pills, caſtor, paregoric elixir with ſacred tincture, &c. *Vide* MENSES.

—*Pain of*. Sperma-ceti, opium, caſtor, camphor, muſk, julep, cordials and balſamics.

DEOBSTRUENTS, *vide* OBSTRUCTION.

DEPLETION. Page 12.

DEPRESSION. Cordials, diaphoretics, volatile alkaline ſalt, eſſential oils, bark, ſpirits, bitters, fetid gums, caſtor, muſk, aſa-fœtida, pepper-mint water.

DETERGENTS. Page 230.

DIABETES. Alum, alum whey, bitters, bark, elixir of vitriol, lime-water, arabic emulſion, alum with bole, ſtyptic power, dulcified ſpirit of vitriol, tincture of roſes, Colbatch's ſtyptic powder, ſaturnine tincture, ſugar of lead, emetics, and gentle cathartics.

DIAPHORETICS. Page 297.

DIAPHORESIS, *to promote*. Page 312.

DIARRHÆA. Nutmeg, aniſeed, ſhepherd's purſe, balauſtines, betony, red roſes, maſtich, golden rod, origanum, lime-water, juniper-berries, ſpermaceti, dock-root, cinquefoil, coneſſi, ſimarouba, balſam of Peru, acacia, marſhmallows, balſam of Tolu, copaiba, ipecacoanha emetics, ipecacoanha with rhubarb, rhubarb bolus with mercury, rhubarb bolus with opium, tincture of ipecacoanha, decoction of ipecacoanha, bitter tincture of rhubarb, all bitters and cordials, opium with camphor and rhubarb, Virginian ſnake-root, compound powder of amber, aromatic ſpecies, eſſential oils, white decoction, compound decoction, decoction of logwood, cordial confection, mucilage of quince-ſeed, Japonic tincture, ſyrup of quinces, electuary for a dyſentery, troches of Japan earth, lohoch of ſtarch, wine of Japan earth, balſam of guaiacum, compound powder of bole with and without opium, compound powder of crab's-claws, cardialgic troches and lozenges, aromatic tincture, cerated glaſs of antimony, common and arabic emulſion, lohoch of linſeed, paregoric elixir, ſtomach tincture, bitter wine, ſyrup of marſhmallows, pectoral ſyrup, pectoral electuary, Locatelli's balſam, common lohoch, lohoch of ſperma-ceti, all diaphoretics, compound juniper water, decoction of ſimarauba, powder of alum and dragon's blood, emollient clyſter, reſtringent clyſter, ſtarch clyſter, aromatic fomentation, bliſtering plaſter, warm aromatic and corroborating plaſter.

DIASTOLE. Page 32.

DIGESTION. Page 175, 439.

—*To promote*. Bitters, bark, elixir of vitriol, tincture of rhubarb, ſacred tincture, cordials, red wine, lime-water, teſtaceous powders, cicuta, acids, ſyrup of orange peel, tincture of roſes, cephalic tincture, traumatic balſam, emetics, ſaline mixture, ſtomach pills, chamomile tea, rhubarb, chalybeates, &c. *Vide* Appetite to reſtore.

DILUTERS. Pag. 13.

DIMULCENTS. Pag. 27.

DISEASE, *acute*. Venæſection, almond emulſions with camphor, ſalts, diluters, depletion, fruit, orange and lemon juice, nitre, acids, ſaline draught, relaxers, white decoction, abſtinence, &c. *Vide* Fever.

—*nervous*, Pag. 9, 51. Bark, ſteel, bitters, muſk, caſtor, amber, ambergris, aſa-fœtida, camphor, antimony, valerian, lime-water, chamomile, all antiſeptics, antimonial emetics, bliſters, pediluvium, cold bath, alterants, corroborants, bitters, acids, and dulco-acid fruit.

—*flatulent*. Pag. 89. Carminatives, opium, caſtor, muſk, aſa fœtida, galbanum, chamomile, and all antiſpaſmodics.

—*of women*. Pag. 102. *Vide* Menſes.

DIURETICS. Pag. 274.

DROPSY. Pag. 457. Muſtard, water flower-de-luce, tartarized ſpirit of wine, feverfew, birthwort, golden rod, tar-water, briony, burnet ſaxifrage, wormwood, leſſer centaury, celandine, juniper-berries, turpentine,

tine, cantharides, elder, garlic, hedge-muſtard, broom-tops, flowers and ſeeds, green broom-top aſhes in old hock, hedge-hyſſop, butcher broom, marſh trefoil, dwarf elder, wake robin, liquorice, madder, chervil, ſtrawberry-leaves, burdock-ſeeds and roots, horſe-radiſh, briony, clove and coſtus electuary, chalybeate, deobſtruent pills, paregoric elixir, all ſalts, acid and alkaline, fixed and volatile, compound horſe-radiſh water, oxymel of garlic, oxymel of ſquills, and all other preparations of them, ſalt of wormwood, gamboge with calomel, mercurial preparations, as calcined mercury, coralline mercury, yellow mercurial emetic, white mercurial corroſive, red corroſive mercury, bolus of jalap with mercury, bolus of ſcammony, rhubarb, jalap, and calcined mercury, æthiopic pills, compound powder of arum, diuretic ſalt, all cathartics, particularly the cathartic extract, gamboge with calomel, jalap with ipecacoanha, tartar, &c. ſpirit of Mindererus, tincture of cantharides, ſaline draught, decoction Seneka, bolus of ſoap and ſquills, balſam of copaiba, and oil of turpentine, ſquill pills, emetics, bitters, bark and aſtringents, iſſues, tapping, &c.

DROWNING, *vide* SUBMERSION.

DYSENTERY. Page 445. *vide* DIARRHÆA.

DYSURY, *or difficulty of making water*, vide URINE, *heat of.*

E.

EARTHS. Page xii of Introduction.

ECBOLICS. Page 102. *vide* EMMENAGOGUES.

EFFERVESCENCE. Pag. 29.

ELECTARIES. Pag. xxxviii of Introduction

ELASTICITY. Pag. 4.

EMETICS. Pag. 404.

EMMENAGOGUES. Pag. 102.

EMOLLIENTS. Pag. 193.

EMPYEMA. Pag. 346.

EPILEPSY. Roſemary, aſarum, betony, aloès, cordials and aromatics, aſa-foetida, ſagapenum, lime-tree, Bates's balſam of amber, muſk, caſtor, cinnabar, caſamunar, miſletoe, valerian, ſalt of amber, oil of hartſhorn, all volatile ſalts and eſſential oils, tincture of amber, tincture of caſtor, Peruvian bark, ſalt and ſpirit of ſoot, oil of rue leaves, compound valerian water, tincture of ſoot, fetid tincture, fetid pills, volatile tincture of guaiacum, elixir of vitriol, calcined mercury, corroſive mercury ſublimate, artificial cinnabar, æthiopic pills, deobſtruent pills, compound powder of arum, compound ſpirit of lavender, volatile aromatic ſpirit, gum pills, antimonials, tincture of cantharides, cathartics, emetics, bliſters, cold bath, &c.

EQUILIBRIUM, *vide* BALLANCE.

ERETHISM. Pag. 355.

ERRHINE. Marjoram, aſarum, maſtic, origanum, lilly of the valley, &c.

ERYSIPELAS. Pag. 357. *vide* ST. ANTONY'S FIRE.

EXCRETION, *of urine.* Page 274.
EXPECTORANTS, *vide* VULNERARIES.
EXOMPHALUS. Page 461.
EXPECTORATION, *to promote, vide* BREAST.
EXPIRATION. Page 3.
EXCORIATION. Rectified ſpirit of wine, yellow cerate, white ointment, ointment of calamine, ſaturnine ointment, pomatum, &c.
EXTRAVASATION. Page 11.
EYE, *to ſtrengthen.* Acacia, camphorated ſpirit of wine, all bitters, the bark, fetid gums, alum and vitriol lotions, &c.
—*Inflamed.* Page 322. Cathartics, venæſection, bliſters, red roſes, opium, leeches to the temples, white collyrium, alum collyrium, Salom's ointment, milk and water, camphorated ſpirit of wine, ſpirit of ſal ammoniac with opium, eye ointment, eye water, alum water, alum curd, fomentation of a decoction of poppy heads, ſyrup of roſes and meconium, with ointment of tutty.
—*Film of.* Saphire coloured water, celandine, alum water with orris root.
—*Defluctions of.* Alum curd, calcined vitriol, bliſter, iſſue.

F.

FAINTING. All cordials, volatile alkaline ſalts, eſſential oils, ſpirits, fetid gums, caſtor, muſk, aſa-fœtida, muſk julep, camphorated julep, ſpirit and ſalt of hartſhorn, ſalt of amber, cool air, &c.
FALLING SICKNESS, *vide* EPILEPSY
FEAR. Page 10.
FEBRIFUGES, *vide* DIAPHORETICS.
FERMENTATION. Page 171.
FEVER. Page 234. Barley water, ſage tea with lemon juice, ſpirit of ſulphur, ſpirit of ſalt, ſalts, acids, depletion, ſaline draught, ſpirit of Mindererus, abſtinence, diaphoretics, James's powder, camphor, muſk, emetic tartar, &c.
—*continued.* Virginian ſnake-root, contrayerva, wild valerian, ſaffron, camphor, muſk, camphorated julep with emetic tartar, cold water with emetic tartar, wine, caſtor, alexeterial water, volatile ſalts, volatile ſpirits, ſpirits of Mindererus, rob of elder with vinegar whey, camphorated julep with vinegar, diaphoretic antimony, different preparations of antimony and mercury with cordials and alexeterial water, bolus of caſtor and muſk, muſk julep with antimonial wine, ſaline draught, compound powder of contrayerva, volatile tincture of the bark with tincture of myrrh, commom emulſion, decoction of barley with nitre, decoction of tamarinds.
—*Intermittent and remittent.* Page 360. Emetics or cathartics, Peruvian bark, muſk, chamomile, oak bark, leſſer centaury, gentian, germander, cinquefoil, ſal ammoniac, chamomile tea with nitre, all bitters, ſteel with the bark, ſaline mixture, ſacred tincture, elixir of vitriol, volatile ſalts, eſſential oils, oil of amber, bitter tincture of rhubarb, camphor, antimony.
—*Putrid and bilious.* Page 363. Dulco-acid fruit, as cherries, muſk, rue, camphor, caſtor, myrrh, red wine, juice of oranges and lemons, vinegar, ſugar, wood ſorrel, antimonial emetics,

tics, cool air, gentle phyſic, as an infuſion of ſena with emetic tartar, elixir proprietatis with Glauber's purging ſalt, Virginian-ſnake-root, julep of muſk, tincture of myrrh, elixir of vitriol, bitters, ſyrup of orange and lemon peel, ſulphurated water, repeated doſes of ipecacoanha from gr. 3 to 6, cold bath, ſpirit of Mindererus, ſweet ſpirit of nitre, moſelle and rheniſh wine with ſpirit of ſal ammoniac, James's powder, diaphoretic antimony, and the other preparations of antimony with the ſtronger mercurials.

—*Malignant, Peſtilential and Petechial.* Page 366. Fruit, acids, juice of lemons, wood ſorrel, bark, bitters, antimonial emetics and diaphoretics, all purges of bile, antiſeptics, cold bath, cold air, preparations of muſk, myrrh, decoction of cloves—July flowers with lemon juice, camphor, all aſtringents, ſpirit of Mindererus, ſweet ſpirit of nitre, dulcified ſpirit of ſal ammoniac, rheniſh wine with ſpirit of ſal ammoniac, plenty of red wine, medicinal regulus of antimony, James's powder, and every other preparation of antimony, with the ſtronger mercurial preparations, ſaffron vinegar.

—*Milk.* Page 307. Tinctura ſacra, depletion, exerciſe, abſtinence, &c.

—*Inflammatory.* Page 317. Dulcoacid fruit, venæſection, ſedative ſalt, juice of lemons and oranges, vinegar, ſaline mixture and draught, almond emulſions with camphor, julep of camphor, ipecacoanha, ſquills, emetic tartar with electuary of ſcordium, Venice treacle, nitre, diluents, as barley-water, depletion by means of cooling phyſic, cool air, ſpirit of Mindererus, ſal prunellæ, ſweet ſpirit of nitre, nitrous decoctions, troches of nitre, antimonial wine, diaphoretic antimony, with compound powder of crabs claws, rob of elder, ſage tea with lemon juice.

FISH. Page 37.

FIT, *hyſteric*, *vide* HYSTERICS.

—*Anguiſh*, *vide* FEVER.

FLATUS. Page 89. Carminatives, aniſeed, ginger, aromatic ſpices, aromatic tincture, pepper-mint water, compound ſpirit of lavender, volatile aromatic ſpirit, cinnamon, juniper water, opium, muſk, aſa-fœtida, caſtor, galbanum, volatile ſalts and eſſential oils, cordials, ſouthernwood, oil of chamomile flowers, ſweet ſpirit of nitre, tincture of rhubarb, ſtomach pills, purging bitter infuſion, fetid tincture, tincture of ſoot, volatile tincture of guaiacum.

FLOODING, *vide* FLUX.

FLUIDITY. Page 5.

FLUOR ALBUS. Page 106. Emetics of ipecacoanha, rhubarb bolus with mercury, amber, marjoram, ſhepherds purſe, acacia, nutmeg, comfry-root, ſpear mint, tormentil, white archangel, clary, plantane, olibanum, dragons blood, gum tragacanth diſſolved in red wine, cinnamon, alum and dragons blood, guaiacum, balſam of Tolu, lady's mantle, turpentine, copaiba, cinquefoil, bitters, the bark, cold bath, aſtringents, oil of marjoram, fetid pills, laxative mercurial pills, chalybeate pills, ſteel wine, ſtyptic powder Peruvian electary with alum, lime water, ſea bathing,

ing, dulcified ſpirit of vitriol, tincture of cantharides, tincture of amber, Colbatch's ſtyptic powder, japonic tincture, compound powder of amber, tincture of myrrh, alum-water, tincture of gum lac, ſtyptic tincture, ſaturnine tincture, ſyrup of kermes, ſyrup of dry roſes, honey of roſes, ſugar of iron, ſugar of lead, medicinal ſtone, balſam of guaiacum, all bitter aromatic tinctures, acid and ſweet elixir of vitriol, balſamic tincture, tincture of Tolu, tincture of Japan earth, calcined mercury, fomentations and injections of Bath water, ſtrengthening ſomentations, anodyne ballam, externally applied.

FLUIDS. Page 1.

—*Thick.* Page 8.

—*Thin.* Page 14.

FLUX, *bloody.* Aſtringent fruit, hips, ſatyrion, agrimony, cinquefoil, ſimarouba, coneſſi, opium, aſtringents, amber, dragon's blood, galls, Peruvian bark, compound powder of amber, compound powder of gum tragacanth, japonic tincture, ſtyptic tincture, ſaturnine tincture, ſyrup of quinces, ſyrup of kermes, ſyrup of dry roſes, honey of roſes, ſugar of lead, medicinal ſtone, lohoch of ſtarch, balſam of guaiacum, compound powder of bole with and without opium, lime water, lohoch of ſperma-ceti.

—*Alvine.* Oak bark, cinnamon, biſtort, lady's mantle, gum arabic, ſperma-ceti, olibanum, Japan earth, dragons blood and alum, aſtringent injections, common and arabic emulſion, ſyrup of marſhmallows, lohoch of linſeed, alum water, alum whey, ſyrup of red roſes, bitters, paregoric elixir, doſſils of ſpong dipt in alum water and inſerted into the vagina, lime water, opiates.

FORCE, *contractile.* Page 3.

—*Antagoniſtic.* Page 3.

FOULNESS, *cutaneous, vide* ITCH.

FRECKLES. Magiſtery of biſmuth, magiſtery of tin, virgins milk, &c.

FRENCH POX, *vide* GONORRHÆA.

FROG. Page 36.

FUROR UTERI. Muſk, muſk julep, aſa-fœtida, tincture of ſoot, fetid tincture, all the fetid gums, opium, &c.

G.

GANGRENE. Page 9. Peruvian bark, oak bark, camphor, contrayerva, myrrh, all antiſeptics, wine vinegar, chamomile, rue, ſouthernwood, bitters, cold air, cold bath, fomentations of rectified ſpirit of wine with vinegar, camphor, rue, chamomile, &c. fomentations of the bark, myrrh, Virginian ſnake-root, camphor and vinegar, oil of turpentine, camphorated cataplaſm, Egyptian ointment or honey, tincture of myrrh with aloes, externally.

GIDDINESS, *vide* VERTIGO.

GLEET. Amber, comfry-root, dragons blood, balſam of Tolu, turpentine, copaiba, tincture of amber, tincture of gum lac, ſteel, ſteel water, ſyrup of dry roſes, ſyrup of roſes, honey of roſes, ſugar of lead, all bitters, balſam of guaiacum, aromatic tincture, acid and ſweet elixir of vitriol, balſamic tincture, tincture of Tolu, lime water, calcined mercury, æthiopic pills, tincture of cantharides.

GONORRHÆA. Decoction of tamarinds with ſena, laxative mercurial pills, tincture of cantharides, balſam of Peru, amber, Bates's balſam of amber, marſhmallows, nitre, balſam of Tolu, balſam of copaiba, burnet ſaxifrage, guaiacum, ſaſſafras, China ſarſaparilla, eryngo, juniper berries, turpentine, dock-root, ſoap wort, mercury, burdock-root, ambergris, oil of ſaſſafras, volatile tincture of guaiacum, balſam of guaiacum, common and arabic emulſion, ſyrup of marſhmallows, lohoch of linſeed, decoction of the woods, calcined mercury, corroſive mercury, ſublimate, and every other ſtrong preparation of mercury, cooling phyſic, emollient fomentations, balſamic injection, mercurial injection, mercurial injection, mercurial ointment, an infuſion of water-dock ℥6, of ſaffron ℥2 of mace, cinnamon, gentian root, liquorice-root and black pepper āā ℥3, (where the pepper is improper ʒ6 of liquorice-root may be uſed) all reduced to a courſe powder, and digeſted with a moderate warmth for three days in a glazed veſſel, in two gallons of water and the yolks of three eggs, doſe ℥3 to 6, every morning faſting.

GOUT. Roſemary, muſk, bark, ſteel, tartarized ſpirit of wine, birth wort, decoction of ſenecka, briony, guaiacum, china, flower-de-luce, ground pine, tar-water, germander, hedge hyſſop, marſh trefoil, ſoap, guaiacum wine with hellebore, ſquill pills, wake-robin, dock-root, cinquefoil, burdock-root, winter cherries, camphor, the ſtrongeſt preparations of mercury and antimony, iſſues particularly between the toes, bliſters, aromatic pills, clove and coſtus electary, fetid pills, chalybeate deobſtruent pills, volatile tincture of guaiacum, balſam of guaiacum with hellebore, balſamic tincture, tincture of Tolu, paregoric elixir, lime-water, calcined mercury, aromatic ſpecies, compound ſpirit of lavender, extract of ſaffron, red wine, emollient cataplaſm, anodyne balſam, anodyne plaſter, tincture of ſulphur, with ſpt. of wine and camphor externally.

GRAPE. Page 172.

GRAVEL. P. 274. *vide* NEPHRITIS.

GREENSICKNESS. Tartarized ſpirit of wine, celandine, ſalt of ſteel, chalybeate deobſtruent pills, corroſive mercury ſublimate, artificial cinnabar, æthiopic pills, compound powder of arum, hierapicra, ſacred tincture, mercurial pills with muſk, tincture of hellebore, ſteel wine, tincture of ſteel, gum pills with aloes, elixir proprietatis, Rufus's pills, extract of gentian, bitters, bitter infuſion, bitter tincture of rhubarb, rhubarb bolus with mercury, ſtomach pills, tincture and elixir, elixir of vitriol, tar-water, decoction of the woods, emetics, pediluvium.

GRIPES. Eſſential oil, volatile alkaline ſalt, ſacred tincture with ſalt of wormwood, gentle opiates with rhubarb, camphor, ipecacoanha, &c. *Vide* CHOLIC.

GROTTADEL CANI. Page 302.

GUM-BOIL. Rectified ſpirit of wine.

GUMS, *to ſtrengthen*. Gargariſm of cinquefoil, aſtringent gargariſms, tincture of lac.

GUMS

GUMS and MUCILAGES. P. xxix. of introduction.
GUTTA SERENA, *vide* EYE INFLAMED.

H.

HABIT, *phlegmatic*. Eſſential ſalt or oil, fixed alkaline ſalt, acrid and cordial medicines, frequent antimonial and ſquill vomits, lime-water, chamomile tea, ſacred tincture with ſalt of wormwood, elixir proprietatis with ſalt of wormwood and ſyrup of ſquills.
HEAD-ACH. Marjoram, emetics, bitters, cordials, volatile alkaline ſalt, camphorated ſpirits of wine, ſpirit of roſemary, embrocations with vinegar of roſes, compound ſpirit of lavender, volatile ſpirts, ſternutatory powder, cephalic plaſter, bliſters, iſſue, pediluvium.
HEAT. Pag. 9, 14, 18, 354.
HEATER. Pag. 14.
HEALTH. Pag. 2.
HEARTBURN. Magneſia alba, and all other abſorbers of acids, powder againſt the heart-burn, fixed alkaline and volatile ſalt, compound powder of crab's claws, chalk julep, compound powder of bole with and without opium, cardialgic lozenges, and troches, flowers of ſulphur, ſugared ſteel, powder of egg ſhells, bitter tincture of rhubarb, ſacred tincture, Peruvian bark, emetics, &c.
HÆMORRAGE, *to reſtrain*. Shepherd's purſe, horehound, rectified ſpirit of wine, plantane, gum arabic, dragon's blood, decoction of tamarinds, nitrous decoction, purging clyſters, alum water of Bates, ſtyptic water, colcothar of vitriol, dulcified ſpirit of vitriol, tincture of roſes, ſtyptic powder, and tincture of Helvetius, ſtyptic powder of Colbatch, oak bark, amber, nettles, alum, biſtort, ladies mantle, cinquefoil, nitre, olibanum, emollient fomentation, elder ointment, water of blue vitriol, ſyrup of kermes, ſyrup of dry roſes, honey of roſes, tincture of roſes, ſugar of lead, common and arabic emulſion, ſyrup of marſhmallows, lohoch of linſeed, paregoric elixir, pectoral electary, Locatelli's balſam, common lohoch, oil of turpentine, ſpirit of ſea ſalt, elixir of vitriol, opiates, bandages, &c.
HÆMORRHOIDS. Sulphur, flowers of ſulphur, fumigations of ſulphur, lenitive electary with ſulphur, anodyne clyſter, anodyne fomentation, &c. *Vide* HÆMORRHAGE.
HÆMOPTOE, *vide* BLOOD-SPITTING.
HECTIC. Pag. 15. *vide* CONSUMPTION.
HERPES MILIARIS, *Cataplaſm of Celandine*.
HICCUP. Oil of dill-ſeed, opium, muſk, eſſential oil of mace, chalk julep, muſk julep, compound ſpirit of lavender, Peruvian bark, ſacred tincture, opiates, volatile aromatic ſpirit, anodyne balſam, ſtomach cataplaſm, camphorated cataplaſm, &c.
HIP-GOUT, *vide* GOUT.
HOARSENESS.
HYDATIDES, *vide* DROPSY. Marſhmallows, maiden-hair, colt's-foot, hedge-muſtard, &c. *vide* COUGH.
HYDROCEPHALUS, *Vide* DROPSY.
HYDROCELE.

HYDROCELE, *vide* DROPSY.

HYDROPS PECTORALIS, *vide* DROPSY.

HYPNOTICS, *vide* NARCOTICS.

HYSTERICS. Zedoary, muſk, opium, ambergris, amber, Bates's balſam of amber, chamomile, galbanum, caſtor, caſumunar, valerian, wood-ſoot, St. John's wort, garlic, tanſy, ſtinking orach tea, Jeruſalem oak, aſa-fœtida, garden clary, ſalt, oil and powers of amber, oil of peppermint, oil of roſemary, oil of chamomile flowers, oil of cummin-ſeeds, oil of penny-royal leaves, oil of the leaves of rue, oil of hartſhorn, all fetid eſſential oils, and volatile alkaline ſalt, julep of muſk, julep of camphor, tincture of caſtor, fetid ſpirit, elixir againſt melancholy, compound powder of myrrh, fetid pills, gum pills, ſalt of ſteel, martial flowers, volatile tincture of guaiacum, dulcified ſpirit of ſal ammoniac, volatile aromatic ſpirit, compound ſpirit of lavender, tincture of wood-ſoot, fetid tincture, tincture of Peruvian bark, elixir of vitriol, elixir proprietatis, fetid clyſter, deobſtruent pills, ſtomach pills, chalybeate pills, ſteel, rhubarb bolus with mercury, bitter tincture of rhubarb, ſacred tincture, emetics, antihyſteric plaſter.

I.

JAUNDICE. Pag. 176, 349. Origanum, roſemary, ſaffron, balſam of Peru, tartarized ſpirit of wine, extract of lovage-root, penny-royal, leſſer centaury, ſoap, wood-lice, turmeric, mercury *herb.* celandine, horehound, ſquill pills, juniper-berries, fumitory, dock-root, cinquefoil, madder, ſtrawberry-leaves, ſquills, winter-cherries, armenian convolvulus root, rhubarb, gum ammoniac, emetics, bitters with teſtaceous powders, milk of ammoniac, compound horſe-radiſh water, decoction for the jaundice, calcined mercury, and all the ſtronger mercurials and antimonials, deobſtruent pills, bolus of mercury with rhubarb, ſaponaceous lohoch, tincture of rhubarb, ſacred tincture with emetic tartar, &c.

ILIAC PASSION. Cathartic and opiates, acrid purging clyſters, aromatic fomentation, &c. *vide* COLIC.

IMBIBITION. Pag. 305.

IMPOSTHUME. Pag. 333. *vide* PERIPNEUMONY, PLEURISY, &c.

IMPOTENCY. Tincture of cantharides, bark, bitters, cold bath, ſea-bath, ſteel, and ſteel-water, *vide* CONCEPTION, *to promote.*

INACTIVITY, *vide* SLUGGISHNESS.

INFANITION, *vide* ATROPHY.

INFLATION *of the Stomach*, vide STOMACH.

INFLUX. Pag. 3.

INFUSION, Pag. xxxv of Introduction.

JOINT, *white Swelling of.* Spirit of Mindererus, ſaponaceous cerate, ſea-water, cephalic plaſter with opium and camphor, gentle alteratives and deobſtruents, ſacred tincture, vegetable æthiops, muſk with the bark and pediluvium, a bliſter, iſſue, plaſter of ſalt, opium, hellebore and henbane, all the ſtronger mercurial

and antimonial preparations in very ſmall doſes, gentle antimonial emetics, ſea bathing, cold bath, &c.

INFLAMMATION. Pag. 42, 354. Venæſection, cooling laxatives, nitre, opium, cooling clyſters, cool air, cold water, emollient decoctions, large quantities of diluents, anodyne cataplaſm, emollient and poppy fomentations, emulſions, bliſters, plaſter of opium, camphor and hemlock, camphorated ſpirits of wine with opium, cooling phyſic, elder ointment, barley water with nitre, &c. *vide* FEVER.

—*of the Brain*, vide PHRENZY.

—*of the Eye*, vide EYE.

—*of the Inteſtines*, Pag. 352. Repeated bleeding, hot bath, diluting antiphlogiſtic clyſters, drinking plentifully of cooling relaxing draughts with ſyrup of poppies, fomentations all over the belly, vinegar, oil of Palma Chriſti, almond emulſions with camphor, oily draughts, infuſion of ſena with tartar, prunellæ, &c. ſal catharticum amarum ℥2, diſſolved in ℔ 1 of water, and two ſpoonfuls taken every half hour till it begins to operate.

—*of the Liver*, Pag. 349. Phlebotony, rhubarb with emetic tartar, infuſion of ſena with emetic tartar, bliſters, antimonial or ipecacoanha emetics, clyſters, fomentations, thin diet, diluters, ſacred tincture with emetic tartar, elixir proprietatis with cryſtals of tartar.

—*of the Throat*, vide QUINCY.

—*of the Lungs*, vide PERIPNEUMONY.

—*of the Pleura*, vide PLEURISY.

—*of the Pancreas, Spleen*, &c. Pag. 353.

INFLAMMATION *of the Stomach*, Pag. 352. vide STOMACH.

INSECTS, Pag. 36.

INSPIRATION, pag. 30.

INSPISSATION, Pag. 10.

INTERMITTENT, *vide* FEVER.

INTESTINES, Pag. 439.

—*their diviſion*, Pag. 440.

IRRITATION, *to allay*. Expreſſed oil, gums, mucilages, agglutinants, abſorbents, alteratives, diaphoretics, opiates, antimony, muſk, camphor, mercury, ſea water, ſea-bath, &c.

ITCH. Cinnabar, vegetable æthiops, to be taken internally, and rubbed over all the body, arum, dock root, ſpeedwell, burnet ſaxifrage, guaiacum, fumitory, ſulphur, mercury, fetid pills, volatile tincture of guaiacum, balſam of guaiacum, lime-water, decoction of the woods, flowers of ſulphur, troches of ſulphur, ſcorbutic juices, precipitate ſulphur, cooling phyſic, mercurial liniment, mercurial ointment, ſulphur lotion, ſulphur ointment, prepared antimony, golden ſulphur of antimony, tincture of antimony, æthiopic pills, ſea-water, ſea-bath, tar water, &c. *vide* SCURVY.

JUICES. Pag. xxx of Introduction.

K.

KIDNEYS. Pag. 27.

KING's EVIL. Burnt ſponge, vegetable æthiop, or Quercus marina, aſtringent lotions, ſea water, ſea-bath, lime-water, cicuta with ſal ammoniac, cicuta with the ſtronger mercurial and antimonial preparations, golden or precipitated ſulphur of

of antimony, camphor, Peruvian bark, decoction of the bark, infusion of buck bean, diuretics, tincture of cantharides, æthiopic pills, mercurial pills, medicinal regulus of antimony, decoction of the woods, balſam of guaiacum, ſcorbutic juices, tar water, mercurial ointment and plaſter, cicuta plaſter with mercury, &c. *Vide* SCURVY.

L.

LACTEALS. Pag. 441.
LYMPHATICS. Pag. 441.
LANGUOR, *vide* DEPRESSION.
LAXITY, *vide* DIARRHÆA.
LEANNESS, pag. 14. *Vide* CONSUMPTION.
LENTOR. Pag. 8.
LEPROSY, *vide* KING'S EVIL.
LETHARGY, *vide* PALSY.
LICE. Mercurial ointment and lotion, oil of lavender.
LIQUOR, *vinous and ſpirituous*, page xxvii of Introduction.
LOOSENESS, *vide* DIARRHÆA.
LOWNESS *of Spirit*. Aromatic diſtilled waters, cordials, muſk, muſk julep, extract of ſaffron, oil of cinnamon, ſpirit of ſaffron, cordial confection, ſpirit of hartſhorn, volatile aromatic ſpirit, compound ſpirit of lavender, confection of kermes, tincture of ſaffron, ſaffron wine, caſtor bolus, &c. *Vide* DEPRESSION.
LOZENGES. Pag. xxxviii of Introduction.
LUES VENEREA. Pag. 236. *Vide* GONORRHÆA.
LEUCOPHLEGMATIA. *Vide* DROPSY.
LUMBAGO. *Vide* RHEUMATISM.
LUNGS. *Vide* ASTHMA.

M.

MADNESS, or MANIA. Muſk, briony, St. John's wort, camphor, aſa-fœtida, gum pills, antimonial wine, tincture of white hellebore, tincture of black hellebore, extract of black hellebore, honey of of hellebore, tincture of jalap, ſacred tincture, emetics and cathartics, venæſection, bliſters, iſſues, and ſeatons, cold bath, pediluvium, cataplaſms or bliſters to the feet, ſaline purges, camphor with nitre, ſaline cooling clyſters, the ſtrongeſt preparations of mercury and antimony in large doſes, tincture of cantharides, &c.
MARASMUS. Page 15.
MEASLES. Cool air, barley-water, ſperma-ceti, emulſion with antimonial wine, ſpirit of Mindererus, camphor, Virginian ſnake-root and nitre, volatile tincture of the bark with tincture of myrrh and paregoric elixir, gentle phyſic, dulco-acid fruit, venæſection, and repeated purges.
MEDICINES. Page 4.
MELANCHOLY. Cordials, diaphoretics, bark, ſpirit of ſal ammoniac, hartſhorn, lavender, aſa-fœtida, muſk, ſacred tincture, antimonial emetics, bitters, exerciſe, cold bath, &c.
MENSES. P. 102. *to forward*. Wall-flowers, origanum, roſemary, thyme, lavender, ſaffron, balſam of Peru, angelica, chamomile, hellebore, mug-

wort, myrrh, horehound, Jeruſalem oak, valerian, zedoary, tanſy, infuſion of bay berries, mother-wort, pennyroyal, ſavin, gum ammoniac, ſagapenum, caſtor, opopanax, birthwort, germander, ſteel, aſa fœtida, aloes, ſalt, oil, and powers of amber, oil of roſemary, volatile ſaline aromatic ſpirit with or without the regulus of iron, rue, ſquills, muſtard ſeed, galbanum, oil of ſavin, tincture of amber, tincture of myrrh, compound elixir of myrrh, elixir againſt melancholy, elixir proprietatis, compound powder of myrrh, fetid pills, gum pills, ſquill pills, gum pills with aloes, volatile tincture of guaiacum, ſacred tincture, ſalt of ſteel diſſolved in water, chalybeate water, chalybeate deobſtruent pills, æthiopic pills, tincture of black and white hellebore, pennyroyal-water, Rufus's pills, extract of black hellebore, bitter infuſion, laxative mercurial pills, troches of myrrh, bleeding in the foot, pediluvium, vapour of hot water and vinegar received into the vagina, warm cataplaſms, plaſters applied to the groin, emollient fomentations, &c.

—*to reſtrain.* Maſtich a dram in a glaſs of red wine, amber, alum and and dragons blood, opium, all aſtringents, decoctions of the bark, tincture of roſes, ſtyptic tincture of Japan earth, ſtyptic powder, dulcified ſpirit of vitriol, cerated glaſs of antimony, gentle emetics, &c. *Vide* HÆMORRHAGE.

METALS. Page xiii. of introduction.

MINERALS. Page xii. of introduction.

MISCARRIAGE, *to prevent.* *Vide* ABORTION.

MORTIFICATION. Page. 9. *Vide* GANGRENE.

MOTION, *muſcular.* Page 18.

—*Oſſillatory.* Page 3.

MOTHER, *fits of.* *Vide* FUROR UTERI.

MUCILAGES. *Vide* GUMS AND MUCILAGES.

MYASMA. Page 19.

N.

NARCOTICS. Page 489.

NAUSEA. *Vide* VOMITING.

NEPHRITIS. Balſam of Peru, Bates's balſam of amber, tartarized ſpirit of wine, chamomile, fennel-root, decoctions of marſhmallows, mallows, mercury, maidenhair, &c. linſeed-tea, burnet ſaxifrage, golden rod, wood ſorrel, celandine, St. John's wort, pine tops and nuts, pæony, juniper-berries, turpentine, cantharides, fumitory, broom, butcher's broom, figs, copaiba, opobalſamum, ſoap, elecampane, madder, parſley-roots, burdock ſeeds and roots, ſquills, nephritic wood, horſeradiſh-root, Armenian convolvulus-root, opium, nitre, oil of benzoine, vegetable and fixed ſalts, balſamic tincture, tincture of Tolu, horſeradiſh-water, juniper-water, lime-water, paregoric elixir, decoction of burdock, decoction of ſenecka, pectoral decoction with nitre, oil of turpentine, oil of juniper, ſalt of wormwood, ſoap lye, ſaponaceous lohoch, vitriolated nitre, lenitive electary, ſal prunellæ, ſalt of many virtues, diuretic ſalt,

ſalt, ſalt of amber, Glauber's ſpirit of nitre, ſaline draught, ſpirit of Mindererus, ſpirit and volatile ſalt of ſal ammoniac, nitrous decoctions, nephritic decoction, tincture of cantharides, oily draught with manna, ſacred tincture with Glauber's purging ſalt, chamomile-tea with nitre, decoction of marſhmallow-roots, turpentine clyſter, oil of palma chriſti, elixir proprietatis with ſalt of wormwood and juniper water, common and arabic emulſion, ſaponaceous plaſter, hot bricks, or bladders full of hot water applied to the kidnies, emollient and anodyne fomentations, hot bath, all the different preparations of ſquills, &c.

NERVES. Page 51, 301.

NERVOUS *deſeaſes*. Page 51, &c.

NUMBNESS. Rectified ſpirit of wine, cataplaſms of muſtard, all acrids, opodeldock, volatile oils and ſalts, friction, biiſters, hot bath, dry-pump, electricity, dulcified ſpirit of ſal ammoniac, &c. *Vide* PALSY.

O.

OEDEMA. *Vide* DROPSY.

OIL, *expreſſed*. Page xiii. of introduction.

—*by infuſion and decoction*. Page xiv. of introduction.

—*eſſential*. Page xiv. of introduction.

—*empyreumatic*. P. xvi. of introduction.

—*foſſile*. Page xvi. of introduction.

OBSTRUCTION. Page 42.

—*to remove*. Peony, ſaffron, cinnabar, gum ammoniac, ſagapenum, opoponax, marjoram, wild marjoram, ground pine, ſcurvygraſs, muſtard, horſeradiſh, arum, euphorbium, fumitory, water creſſes, butchers broom, ſoap, origanum, armenian convolvulus root, cherries, ballam of Peru, ſavin, burnet ſaxifrage, mercury herb, maidenhair, wood ſorrel, ſpeedwell, rob of elder-berries, dock-root, cinquefoil, extract of lovage-root, madder, wood-lice, ſal ammoniac, pennyroyal, lily of the valley, fennel-root, mugwort, chamomile, ſtinking arach, myrrh, winter's bark, valerian, hellebore, the ſtrongeſt preparations of mercury and antimony, fetid gums, cicuta with antimony, all ſalts, oil of marjoram, aromatic pills, tincture of myrrh, milk of ammoniac, chalybeate deobſtruent pills, volatile tincture of guaiacum, compound horſeradiſh water, decoction of the woods, calcined mercury, æthiopic pills, deobſtuent pills, compound powder of arum, hierapicra, tinctura ſacra with emetic tartar, &c. *Vide* SCURVY, &c.

OPIATES. *Vide* NARCOTICS.

OPTHALMIA. *Vide* EYE INFLAMED.

P.

PAIN. Page 482.

—*of child-bed*. Sperma-ceti, betony, opium, mithridate and Venice treacle, caſtor, muſk, camphor, balſam of Tolu, balſam of copaiba, Locatelli's balſam, mild cordial and gentle diaphoretics, hot bath, &c.

—*to eaſe*. Sedative ſalt, wall flower, damaſk roſes, lime-tree, peony, muſk, almonds, ſaffron, opium, chamomile, camphorated ſpirit of wine, externally, oil of wormwood leaves, oil of thebaic

thebaic extract, pacific pills, Mathew's pills, ſoap pills, ſtorax pills, amber, externally, corroſive mercury ſublimate, deobſtruent pills, æthiopic pills, all antimonials and mercurials, muſk and caſtor bolus, ſyrup of meconium, paregoric elixir, bliſter, dulcified ſpirit of ſal ammoniac, poppy fomentation, cicuta fomentation, balſam of turpentine, anodyne liniment, anodyne plaſter, camphorated oil, &c.

PALPITATION. Page 10. Kermes, aſa-fœtida, muſk, fetid pills, gum pills, cordial bitters, the bark, bitters, ſalts, ſacred tincture, an emetic, cold bath, &c.

PARALYSIS or PALSY. Roſemary, garlic, arum, pellitory of Spain, Virginian ſnake-root, lavender, leaves of betony, muſtard, Bates's balſam of amber, rue, ſage, cardamom ſeeds, cloves, cubebs, guaiacum, miſſletoe, caſamunar, valerian, volatile alkaline ſalt, ſalt of amber and oil of amber externally, china, tincture of wood-ſoot, fetid tincture, ſneezing powder, ſaſſafras, aſa fœtida, camphor, euphorbium, tincture of caſtor, antimonial emetics, oil of lavender externally and internally, aſa-fœtida, camphor, the ſtrongeſt preparations of mercury and antimony, compound ſpirit of lavender, cephalic balſam, externally and internally, clove and coſtus electary, dulcified ſpirit of ſal ammoniac, horſeradiſh water, bolus of muſk, caſtor and camphor, antiſcorbutic juices, decoction of the woods, fetid pills, gum pills, volatile tincture of guaiacum, aromatic tincture, acid and ſweet elixir of vitriol, æthiopic pills, deobſtruent pills, compound powder of arum, hiera picra, bath-water, cephalic powder, balſam of turpentine, nervine ointment, all acrid irritating medicines, emetics, bliſters, electricity.

PARAPHRENITIS, *vide* PLEURISY.

PAREGORICS, *vide* PAIN TO EASE.

PEDICULI INGUINALES, *to kill.* Paper dipt in oil, lavender, &c. *Vide* LICE.

PERIPNEUMONY. Pag. 329. Nitre, bliſter, venæſection, cooling phyſic, gentle ſaponaceous and nitrous diluents, acids, vinegar, camphor, ſquills, ſperma-ceti, diaphoretic antimony, antimonium ſtibiatum, rob of elder-berries, paregoric elixir, gum ammoniac, aſa-fœtida, ſalt of wormwood, cooling, relaxing, and gentle ſaponaceous diluents, ſyrup of marſhmallows, rob of elder, lac ammoniac.

—*notha or ſpurious*, pag. 338. Sperma-ceti boluſes with emetic tartar, gum ammoniac, aſa-fœtida, and ſalt of wormwood, venæſection, ſaline draught, ſquills, muſk, bark, paregoric elixir with antimony, balſamics, expectorants, &c.

—*putrid*, pag. 336.

—*ſpaſmodic*, pag. 329. Bliſters, opium, muſk, camphor, diaphoretic antimony, paregoric elixir, cephalic plaſter with opium and camphor, &c.

PERSPIRATION. Pag. 237.

—*obſtructed*, pag. 300.

—*to promote*, vide DIAPHORETIS.

PERVIGILIUM, *vide* PHRENZY, PHRENITIS, or MANIA.

PHTHISIS,

PHTHISIS, pag. 14, 338. *Vide* CONSUMPTION.

PHLEBOTONY, *vide* VENÆSECTION.

PLEGMON, *vide* INFLAMMATION.

PHLEGM, *to cut.* Ammoniacum, lac ammoniacum, ſquills, myrrh, lime-water, chamomile-tea, acids, juice of lemons, gentle emetic, ſacred tincture, volatile and fixed alkaline ſalt.

PHLEGMATIC, *vide* SLUGGISH.

PHYSIC. Pag. 1.

PHYSICIAN. Pag. xi.

PILES, *vide* HÆMORRHOIDS.

PLAGUE, *vide* FEVER MALIGNANT.

PILLS. Pag. xxxvii of Introduction.

PLEURISY. Pag. 341. Venæſection, penny-royal, daiſy-leaves and roots infuſed in vinegar, linſeed, elecampane, maiden-hair, opobalſamum, nitre, bliſter, barley water with nitre, ſaline mixture, ſal prunellæ, ſpirit of Mindererus, plaſter of cicuta, opium and camphor, preparations of antimony, clyſters, cooling ſaline purges, ſal. Glaub. manna, ſoluble tartar.

POLYPUS. Pag. 8.

POWDERS. Pag. xxxvi of Introduction.

POX, *Small.* Pag. 237, 373. Myrrh, mercury, antimony, fruit, cold air, cold water, burdock, camphor, bark bitters, acids, cold bath, bliſters, James's powder.

PRESERVES. Pag. xxxii of Introduction.

PULMONICS, *vide* VULNERARIES.

PUNCTURE, *of a Nerve.* Baths, fomentations, balſam of Peru, &c.

PUS. Pag. 3.

PUTRIFACTION. Pag. 25.

—*to prevent.* Peruvian bark, myrrh, aloes, ſalts, cold bath, cold air, cold water, contrayerva-root, bitters, horſe-radiſh, ſcurvy-graſs, muſtard-ſeed, acids, fruit, ſcorbutic juices, decoction of the woods, all antiſcorbutics, &c.

—*to promote.* Mercury, chalk, farinaceous vegetables, crab's-claw, and all abſorbent earths and earthy bodies, heat, moiſt air, thunder, ſtinking fleſh, putrid effluvia, blood, flour, barley, oatmeal.

Q.

QUINCY. Pag 323.

—*inflammatory.* Venæſection, flannel dipt in camphorated ſpirits, or two parts of ſweet oil and one of ſpirits of hartſhorn, decoction of figs with ſpirit of ſal ammoniac, bliſter to the neck and throat, ſtrong cooling phyſic and clyſters, pediluvium, nitre, acids, fruit, ſteams of vinegar, camphorated cataplaſm, ſpirit of Mindererus, gargariſms, volatile liniment, bronchotomy.

—*convulſive*, pag. 325. Opium, muſk, aſa-fœtida, caſtor, camphor, bliſter, clyſters, &c.

—*oedematous*, pag. 325. Bark, bliſter, camphor, cicuta, gamboge, jalap and calomel in pretty large doſes, cordials, generous food, plenty of wine, diaphoretics, &c.

—*malignant*, *ulcerated*, or *gangrenous*, p. 326. Emetics, gargariſms, camphor, bark, tincture of myrrh, contrayerva root, Virginian ſnake-root, tincture of myrrh with aloes, bliſters, gentle

gentle phyſic, clyſters, antimonial preparations that operate both ways, antimonial diaphoretics with the bark, muſk and camphor often repeated, Rheniſh and Port wine, ſpirit of Mindererus, ſaffron wine, ſteams of hot vinegar, gargariſms of vinegar, myrrh, bark and honey, camphor and nitre made up with rob of elder, bathing the feet.

R.

REGIONS *of the Abdomen*, page 440.
—*epigaſtric.*
—*umbilical.*
—*hypogaſtric.*
—*lumbar.*
RELAXERS. Pag. 16.
RESINS, pag. xxix of Introduction.
RESOLVENTS, *vide* ATTENUANTS.
RESOLUTION. Pag. 25.
RESTORATIVES. Pag. 202.
REVULSION, *to cauſe.* Cataplaſms, venæſection, cauſtics, friction, bliſters, &c.
RHEUMATISM. Decoction of burdock, muſtard, muſk, amber, tartarized ſpirit of wine, birthwort, briony, guaiacum, flower-de-luce, ground-pine, germander, hedge-hyſſop, decoction of Senecka, marſh-trefoil, ſoap, wake-robin, china, ſquills, ſcurvy-graſs, burdock root, winter-cherries, emollient cataplaſm, oil of turpentine, ſaponaceous balſam, camphorated oil, anodyne liniment, ſaponaceous plaſter, warm plaſter, camphorated ſpirit of wine with opium, oil of amber, oil of lavender both externally and internally, bliſters, iſſues, tincture of amber, aromatic pills, clove and coſtus electary, fetid pills, chalybeate deobſtruent pills, oil of ſaſſafras, volatile tincture of guaiacum, aromatic tincture, acid and ſweet elixir of vitriol, balſamic tincture, tincture of Tolu, paregoric elixir, oil of turpentine externally and internally, lime-water, decoction of the woods, ſcorbutic whey, ſcorbutic juices, ſpirit of ſcurvy-graſs, ſalt of wormwood, calcined mercury, corroſive mercury ſublimate, and the other ſtrong preparations of mercury and antimony, tincture of cantharides, artificial cinnabar, æthiopic deobſtruent pills, compound powder of arum, rob of elder, venæſection, &c.
RICKETS. Ens veneris, martial flowers, ſalt of ſteel, and all preparations of it, the bark bitters, cold bath, cold water poured down the back, magneſia alba, aromatic ſpecies, martial flowers, aromatic fomentation, nerve ointment,
RINGWORM, *vide* TETTERS.
RUPTURE. All ſtrengtheners, cold bath, cold water, plaſter for a rupture, ſtrenthening plaſter, bandages, &c.

S.

ST. VITUS's DANCE. Opium, muſk, aſa-fœtida, cordials, diaphoretics, emetics, bitters, &c.
SALIVA Pag. 176, 438.
SALIVATION. Pag. 253.
— *to check.* Sulphur, cathartics, diaphoretics, gold gargariſms.

SALT.

SALT. Page xvii of Introduction.
—*catholic*, pag. xvii of Introduction.
—*acid, vitriolic*, pag. xx Introduct.
—*nitrous*, pag. xxi Introduct
—*muriatic*, pag. xxi Introduct.
—*vegetable*, or *eſſential*, pag. xxii Introduct.
—*alkaline fixed*, pag. xxiii Introduct.
—*foſſile*, pag. xxiv. Introduct.
—*volatile*, pag. xxiv Introduct.
—*neutral*, pag. xxv Introduct.

SANCTORIUS Pag. 3.

SCABS, *vide* ITCH.
—*to forward their falling off*. Rectified ſpirit of wine, &c.

SCALD-HEAD. Ointment of tar, antimonial æthiops, ointment of tar, ſulphur and yellow wax, ſea-water, ſea-bath, æthiops vegetabilis, quercus marina externally, &c. *Vide* KING'S EVIL.

SCHIRRUS. Pag. 9.
—*to reſolve*. Gum guaiacum, briony, wood-lice, mercury, antimony, ſea-water, vegetable æthiops, leſſer centaury, cicuta, mercurial and cicuta plaſter, fomentations, baths, vapour of hot water and vinegar, gentle cathartics, decoction of the woods, cauſtic or lancet.

SCIATICA, *or* HIP-GOUT, *vide* GOUT. Æthiops mineral, vegetable æthiops, leſſer centaury, mercury, antimony, and all the ſtrongeſt preparations of each, ſudorifics, camphor, muſk, bliſters, iſſues, oil of origanum, and oil of turpentine externally, poultice of ſalt and ſoap, ſinapiſms, diſcutient plaſters, &c.

SCROTUM, *inflammation of*. Venæſection, cooling phyſic, fomentations, agrimony.

SCROPHULA. Pag. 230.

SCURVY. Pag. 230. Muſtard, winter's-bark, tartarized ſpirit of wine, burnet ſaxifrage, vegetable æthiops, ſea-water, ſea-bath, lotions of quercus marina, aſtringent lotions with ſugar of lead, guaiacum, ſaſſafras, leſſer centaury, juice of lemons and oranges, ſcorbutic juices, ſcurvy-graſs, vinegar, ſugar, vipers, whey, wood-ſorrel, ſtrong decoction of ground-ivy after an antimonial emetic, pine tops and nuts, turpentine, cantharides, garlic, brook-lime, germander, fumitory, water creſſes, marſh-trefoil, birch-wine, arum, dock-root, burdock-root, wood-lice, winter-cherries, horſe-radiſh, daiſy-roots, the bark, bitters, diaphoretics, aſtringents, gentle detergents, elixir of vitriol, elixir proprietatis with ſalt of wormwood, ſacred tincture with emetic tartar and lemon juice, tar-water, antimony and mercury, horſe-radiſh, ſcurvy-graſs, water-dock, buck-bean, lime-water, compound horſe-radiſh water, decoction of the woods, ſcorbutic whey, ſcorbutic juices, ſpirit of ſcurvy-graſs, preparations of ſulphur, tincture of cantharides, calcined mercury, artificial cinnabar, æthiopic, mercurial and deobſtruent pills, chalybeate and ſulphur waters, chalybeate pills, fetid pills, volatile tincture of guaiacum, dulcified ſpirit of ſal ammoniac, æthiopic pills, antimonial æthiops, all alteratives of mercury and antimony, cicuta with corroſive mercury, and gentle cooling phyſic occaſionally, tincture of cantharides with antimonial wine, rob of elder,

ſyrup of orange-peel, and alexeterial water, yellow mercurial emetic with opium, camphor and muſk, emetic tartar with red corroſive mercury, reſin of guaiacum, and extract of black hellebore, white mercurial corroſive, antimonial wine, alexeterial water, ſyrup of orange-peel, and ſyrup of violets, ſtomach elixir, acid elixir of vitriol, elixir proprietatis, elixir againſt melancholy, ſalt of ſteel, with all other preparations of that metal, bitter infuſion, bitter tincture of rhubarb, ſtomach pills, ſalt of many virtues, &c. *Vide* KING'S EVIL, VEGETABLE DIET.

SEMINAL WEAKNESS, *vide* GLEET

SERUM. Pag. 6.

SHINGLES. Alteratives, cooling phyſic, ſcorbutic juices, precipitated ſulphur, alkalized mercury, ſulphur, lotion, yellow or common cerate, &c. *Vide* TETTERS.

SHORTNESS *of Breath*, vide ASTHMA.

SKIN. Pag. 297.

SLEEP, *to procure*. *Vide* NARCOTICS.

SLUGGISHNESS. Cordials, emetics, eſſential and fixed alkaline ſalts, eſſential oils, bitters, bark, bliſters, &c.

SNEEZING. Pag. 505.

—*to promote*, pag. 505.

SOLIDS. Pag. 1, 44.

SOPORIFICS, *vide* NARCOTICS.

SPASM. Pag. 89. Peony, lime-tree. muſk, ambergris, chamomile, caſtor, mugwort, rue, aſa-fœtida, ſedative ſalt, garden clary, Jeruſalem oak, opium, cordials, carminatives, muſk julep, camphor, camphorated julep, oil of wormwood leaves, thebaic tincture, Venice treacle.

SPHACELUS. Pag. 9. *Vide* GANGRENE.

SPLEEN. Deobſtruent pills, ſcorbutic juices, common plaſter, ammoniacum plaſter with hemlock, emetics, &c.

SPRAIN. Camphorated ſpirit of wine, fomentation or poultice of chamomile, plaſter of oxycroceum, &c.

STERILITY, *vide* CONCEPTION.

STYPTICS, *vide* ASTRINGENTS.

STEPHENS, Mrs. *her Medicine*, pag. 245.

STOMACH, *Inflation of*. Cordials, aromatics, carminatives, volatile alkaline ſalts, muſk, emetic, &c.

—*Weakneſs of*. Origanum, peppermint, lavender, mace, nutmeg, aloes wood, balſam of Peru, ſweet ſcented flag, chamomile, myrrh, galangal, zedoary, ginger, extract of lovage-root, aniſeed, caraway, infuſion of bay leaves, mother-wort and calamint, calamus aromaticus, gentian, wormwood, penny-royal-tea, ſagapenum, caſamunar, ſpear-mint, burnet ſaxifrage, maſtich, leſſer centaury, guaiacum, tar-water, tanſy, wake robin, elecampane, fennel-ſeed, germander, carduus benedictus, Peruvian bark, rhubarb, compound juniper water, lime-water, aromatics, bitters, ſtomachics, oil of nutmeg, all the cordial waters, as pepper-mint-water, aromatic tincture, aromatic ſpecies, aromatic pills, martial flowers, oil of fennel-ſeed, gum pills, oil of cinnamon, oil of mint.

STOMACHICS. Pag. 171.

STONE, *vide* NEPHRITIS.

STRANGURY. Burnet ſaxifrage, marſh-

marſhmallows, almonds, nitre, compound powder of gum tragacanth, oil of almonds, common and arabic emulſion, ſyrup of marſhmallows, paregoric elixir, ſperma-ceti, emulſions, &c.

STRENGTHENERS, *vide* CORROBORANTS.

STRUMA, *vide* KING'S EVIL.

SUBMERSION. Pag. 38. Venæſection cordials, friction, acrid clyſters, tobacco clyſters, rubbing the body with a fleſh bruſh, warm flannels, ſalt or aſhes, warm cloaths, inflating the lungs, bronchotomy, &c.

SUBSULTUS TENDINUM. Muſk, muſk julep, camphor, camphorated julep, aſa-fœtida, opium with cordials.

SUPER-PURGATION. Pag. 408.

SUPPURATION. Pag. 25.

SURFEIT, *vide* CRAPULA.

SUTTON, Mr. *his Practice cenſured*, pag. 237, 373.

SWALLOWS. Pag. 36.

SWEAT. Pag. 297, 308.

SWEATING, *to promote*, pag. 310. *vide* DIAPHORETICS.

SWELLING, *glandular*. Vegetable æthiops, cicuta, ſea-water, ſea-bath, tincture of cantharides, phyſic, &c.

—*Cold*, pag. 8. Antimony, camphor, alteratives, gentle phyſic, decoction of the woods, mercurial and hemlock plaſter, ſteams of vinegar and hot water, diſcutient fomentations, &c.

SYRUPS. Page xxxii of Introduction.

SYSTOLE. Pag. 32.

T.

TEETH, *to clean*. Myrrh, brick-duſt, tobacco-aſhes, tincture of myrrh with aloes, a powder of myrrh, rock alum, dragon's blood, and cream of tartar, vitriolated tartar in powder, red wine, &c.

TENSION. Expreſſed oil, emollient fomentations, hot bath, dry pump, electricity, camphorated ſpirits of wine with opium, &c.

TENESMUS. Muſk, opium, Venice treacle, anodyne clyſter, cordial mixture, &c. *Vide* DYSENTERY.

TETTERS. Yellow ointment, cooling phyſic, &c. *Vide* ITCH.

THIRST, *to quench*. Sage-tea with lemon juice, clove July flowers, cherries, fruit, acids, nitre, &c.

THORACICS, *vide* VULNERARIES.

THROAT, *ſore*. *Vide* QUINCY.

THRUSH, *vide* APHTHÆ.

TIMPANY, *vide* DROPSY.

TOAD. Pag. 36.

TOWNSEND, *his Caſe*. Pag. 38.

TRANSPIRATION. Pag. 299.

TRAUMATICS, *vide* VULNERARIES.

TROCHES. Pag. xxxviii of Introduction.

TRANSUDATION. Pag. 304.

TUMOURS, *to diſcuſs*. Litharge vinegar, ſal ammoniac, ſpirit of Mindererus, camphorated ſpirit of wine, diſcutient cataplaſms, ointment of elder, gum plaſter, mercurial plaſter, common and diachylon plaſter with gums, ſoap plaſter, camphorated oil, opodeldock, cicuta plaſter with gums, &c.

—*to maturate*. Bdellium, briony, ripening cataplaſm, ſuppurating cataplaſm, &c. *Vide* SWELLING.

TWITCHING *of the tendons.* Muſk, camphor, volatile ſalts, &c. *Vide* SUBSULTUS TENDINUM.

TYMPANY. Aromatic ſpecies, ſcammony, gamboge, elixir of aloes, mild cathartics, carminatives, bliſters, &c. *Vide* DROPSY.

U.

ULCER, *to cleanſe.* Balſam of Peru, ſavin, myrrh, celandine, turpentine, opobalſamum, elecampane, armenian convolvulus root, traumatic balſam, Locatelli's balſam, balſam of amber, tincture of myrrh with aloes, green balſam, ointment of gum elemi, baſilicum ointment, ſaturnine ointment, ointment of calamine, epulotic cerate

URINE. Page 274.

—*bloody.* Almonds, gum arabic, gum tragacanth, Japan earth, Peruvian electuary with alum, Armenian bole, nettle-roots, alum, tincture of roſes, elixir of vitriol, ſpirit of vitriol, alum whey, all aſtringents, camphor, ſperma ceti, oils recently expreſſed, as oil of the palma chriſti, cream, freſh butter, butter-milk, emulſions, decoctions and infuſions of marſhmallows, pellitory, mercury, &c. jellies with lemon juice, lime-water, ſtyptic powder, Colbatch's ſtyptic powder, ſaturnine tincture, ſugar of lead, mild emetics and cathartics, venæſection, &c.

—*heat of.* Peony, white archangel, marſhmallows, almonds, conſerve of hips, pine-tops and nuts, jujubs, nitre, expreſſed oil, &c.

—*ſuppreſſion of.* Balſam of Tolu, ſouthernwood, juniper berries, turpentine, cantharides, Armenian convolvulus-root, wood-lice, ſal ammoniac, oil of caraway ſeeds, ſalt of ſteel, oil of almonds, common and arabic emulſion, ſyrup of marſhmallows, oil of juniper, oil of turpentine, compound horſeradiſh water, ſalt of wormwood, ſalt of many virtues, ſal prunellæ, vitriolated nitre, paregoric elixir, ſpirit of Mindererus, opiates, hot bath.

UTERINES. *Vide* EMMENAGOGUES.

UTERUS. *Vide* WOMB.

V.

VEGETATION. Page 35.

VEGETABLES. Page. xii. of introduction.

VENEREAL *diſeaſe. Vide* GONORRÆA

VENÆSECTION. Page 408.

VERTIGO. Emetics, bitters, cordials, bliſters, bathing the feet, lavender, &c. *Vide* HEAD-ACH.

VERMIFUGE. *Vide* WORMS.

VESSELS. Page 3.

—*abſorbent.* Page 439.

—*lacteal.* Page 439.

VISCIDITY. P. 19. *Vide* SLUGGISHNESS.

VITUS. *Vide* FAINT.

VOMICA. *Vide* PERIPNEUMONY.

VOMITING, *to ſtop.* Oil of dill-ſeed, ſpear-mint, ſalt, nutmegs, vinegar, oil of ſpear mint, eſſential oil of mace, acid and ſweet elixir of vitriol, ſalt of wormwood, cathartics, emetics, opiates, infuſion of mint, ſaline mixture, paregoric elixir, bitter infuſion, chamomile tea, mint-water, elixir of property with ſalt of wormwood, ſacred

ſacred tincture with lemon juice, bitter tincture of rhubarb, ſtomach cataplaſm, ſtomach plaſter, cephalic plaſter.
—*to excite.* *Vide* EMETICS.
VULNERARIES. Page 214.

W.

WATER. Page 388.
—*diſtilled.* P. xxviii. of introduction.
WHITES. *Vide* FLUOR ALBUS.
WIND. *Vide* FLATUS.
WOMB. Page 102.
—*to cleanſe.* Saffron, mugwort tea, myrrh, aloes, caſtor, ſacred tincture, elixir proprietatis, &c.
—*to ſtrengthen.* Angelica, ſavin, Peruvian bark, bitters, lime-water, cold and ſea bath, all aſtringents, ſteel, ſteel-water, tincture of roſes, &c.
WORMS, *to deſtroy.* Tanſy, ſavin, rue, aſa-fœtida, myrrh, wormwood, worm-ſeed, leſſer centaury, gentian, tin, ſouthernwood, St. John's wort, ſulphur, mercury, oil of chamomile flowers, oil of the leaves of rue, all fetid eſſential oil, ſalt of ſteel, powdered tin, oil of wormwood leaves, artificial cinnabar, aloes, expreſſed oil, white and green vitriol, ſugared mercury, vermifuge powder, rhubarb bolus with mercury, ſugared ſteel, laxative mercurial pills.
WOUND, *to cleanſe.* Balſam of Peru, myrrh, tincture of myrrh with aloes, *vide* ULCER.

FINIS.

ERRATA.

Page	Line	
xxii.	27.	*dele* to
xxiv.	29.	*for* Salts *read* Oils
xxvii.	1.	*for* muria *read* muriaticus
xxxiv.	3.	*for* tinges *read* changes
4,	26.	*for* always *read* often
14.	21.	*for* contained *read* containing
		for contracted *read* contained
59.	12.	*for* ʒſs *read* ʒiſs
82.	6.	*for* gr. 10 *read* ʒ10
118.	5.	*for* ʒi *read* ʒi
119.	17.	*read* extract of Savin
133.	11.	*for* lb.i *read* ʒ6
159.	3.	*for* ʒ2 *read* ʒ16
160.	8.	*after* ſal mart, *read* ʒſs
185.	10.	*for* ʒi to ℈ *read* ʒſs to ʒ2
187.	5.	*for* ʒ2 *read* ʒ2
201.	3.	*after* rad. irid. *read* āā ʒi
282.	3.	*for* CHAMÆDRYS *read* CHÆREFOLIUM
394.	1.	*for* ʒſs to 2 *read* gut. 5 to 15
434.	15.	*read* middle aged perſons and infants bear purging beſt, old age worſt

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XIII. Of an Epilepſy.
XIV. Of a Palſy, and St. Vitus's Dance.
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XVIII. Of Lunacy, or Raging Madneſs.

By W. SMITH, M. D.

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